

# MISSOURI SPECIES AND COMMUNITIES\* OF CONSERVATION CONCERN



## *Checklist*



Greater Roadrunner

**JANUARY 2015**

\* Terrestrial Natural Communities. Does not include aquatic, geologic or cave communities.

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**NOTICE:** Please submit reports of all sightings of species and natural communities listed in this checklist on the forms provided in the back of this checklist. Special criteria apply to birds and reports should follow the guidelines listed in Appendix A.

## INTRODUCTION

The Department of Conservation is charged with the protection and management of Missouri's fish, forest, and wildlife resources. In the brief time since the settlement of Missouri, many plants and animals have declined to levels of concern and some have disappeared entirely. The species cataloged in this checklist represent 18 percent of the native vascular plants, 14 percent of the nonvascular plants, 28 percent of the vertebrate animals, and an unknown percentage of the native invertebrate species in Missouri. Together, the animals, plants, and natural communities represent Missouri's biological diversity—a heritage worth protecting.

The Department maintains two references relating to the status of listed plants and animals in Missouri: the *Missouri Species and Communities of Conservation Concern Checklist* and the *Wildlife Code of Missouri*. The *Missouri Species and Communities of Conservation Concern Checklist* is mostly utilized for planning and communication purposes. All animal species in the State of Missouri are protected as biological diversity elements unless a method of legal harvest or take is described in the *Wildlife Code of Missouri*. All plant species in the State of Missouri are protected as biological diversity elements only on land owned by the Missouri Department of Conservation. Species listed in the *Wildlife Code of Missouri* under 3 CSR 10-4.111 and 3 CSR 10-4.113, and all federally listed endangered and threatened plants and animals protected by the Endangered Species Act of 1973 (ESA) are protected by the State Endangered Species Law 252.240. Some additional plants and animals in this checklist also appear in the *Wildlife Code of Missouri* and are afforded special legal protection.

### How to use the checklist

The checklist, developed with the cooperation of specialists throughout the state, is a list of plants, animals, and natural communities the Department of Conservation is particularly concerned about due to population declines or apparent vulnerability. The state rank (SRANK) shows the level of concern for each Element's continued existence in Missouri. For each Element (i.e., species, subspecies or variety, or natural community type), at least 6 basic factors are considered when assigning an SRANK:

- the estimated number of Element Occurrences (EOs) throughout the Element's state range
- the estimated state abundance of the Element (measured by population, area, or stream length)
- the estimated size of the Element's state range
- the trend in the Element's distribution over its state range
- the estimated number of adequately protected EOs throughout the Element's state range
- the degree to which the Element is threatened in the state

The checklist also indicates for each lichen, plant, and animal Element information on the Element's global rank (i.e., its relative rarity or endangerment in the world). This is useful for understanding the relative rarity or endangerment of an Element from a global perspective (i.e., beyond state, national, or regional boundaries). Global ranks (i.e., GRANKS), are completed by the Natural Heritage/Conservation Data Center personnel and/or NatureServe. For each Element, the same six factors listed above for SRANKS are considered when assigning GRANKS, but in a global context. Additionally, the fragility or susceptibility of the Element to intrusion or disturbance is considered when assigning a global rank.

The Global and State Ranking System methodology was developed and provided by The Nature Conservancy, Conservation Science Division, in association with the Network of Natural Heritage Programs and Conservation Data Centers. NatureServe 2005. NatureServe Central Databases. Arlington, Virginia. U.S.A.

The checklist is arranged by broad taxonomic groups (e.g., terrestrial natural communities, flowering plants, insects, fish, and mammals). Within each group, species are arranged alphabetically by their scientific names and terrestrial natural communities by community type. Each Element is identified by its scientific name, common name, federal status, state status, global rank, and state rank.

## TERMS AND DEFINITIONS

### **FEDERAL STATUS**

The federal status is derived from the provisions of the Endangered Species Act of 1973, as amended, which is administered by the U.S. Fish and Wildlife Service. Passage of the Endangered Species Act of 1973 gave the United States one of the most far-reaching laws ever enacted by any country to prevent the extinction of imperiled animals and plants. Protecting endangered and threatened species and restoring them to the point where their existence is no longer jeopardized is the primary objective of the Fish and Wildlife Service's Endangered Species Program.

**E: Endangered:** Any species which is in danger of extinction throughout all or a significant portion of its range.

**T: Threatened:** Any species which is likely to become endangered within the foreseeable future.

**C: Candidate:** Plants or animals which the Service is reviewing for possible addition to the list of endangered and threatened species.

**PE: Proposed Endangered:** Species officially proposed for listing as endangered; final ruling not yet made.

**PT: Proposed Threatened:** Species officially proposed for listing as threatened; final ruling not yet made.

**SAT: Threatened due to similarity of appearance:** Species is listed for its protection due to similarity of appearance with another listed species. Species listed as SAT are not biologically threatened.

### **STATE STATUS**

Rule 3CSR10-4.111 of the *Wildlife Code of Missouri* and certain state statutes apply to state *Code*-listed species.

**E: Endangered:** Determined by the Department of Conservation under constitutional authority.

### **GLOBAL RANK**

A numeric rank (G1 through G5) of relative endangerment based primarily on the number of occurrences of the Element (i.e., species, subspecies, or variety) globally. Other factors in addition to the number of occurrences are considered when assigning a rank, so the numbers of occurrences suggested for each numeric rank below are not absolute guidelines.

**G1: Critically Imperiled:** Critically imperiled globally because of extreme rarity or because of some factor(s) making it especially vulnerable to extinction. Typically 5 or fewer occurrences or very few remaining individuals (<1,000) or acres (<2000) or linear miles.

**G2: Imperiled:** Imperiled globally because of rarity or because of some factor(s) making it very vulnerable to extinction or elimination. Typically 6 to 20 occurrences or few remaining individuals (1,000 to 3,000) or acres (2,000 to 10,000) or linear miles (10 to 50).

### **GLOBAL RANK (Cont.)**

**G3: Vulnerable:** Vulnerable globally either because very rare and local throughout its range, found only in a restricted range (even if abundant at some locations), or because of other factors making it vulnerable to extinction or elimination. Typically 21 to 100 occurrences or between 3,000 and 10,000 individuals.

**G4: Apparently Secure:** Uncommon but not rare (although it may be rare in parts of its range, particularly on the periphery), and usually widespread. Apparently not vulnerable in most of its range, but possibly cause for long-term concern. Typically more than 100 occurrences and more than 10,000 individuals.

**G5: Secure:** Common; widespread and abundant (although it may be rare in parts of its range, particularly on the periphery). Not vulnerable in most of its range. Typically with considerably more than 100 occurrences and more than 10,000 individuals.

**G#G#: Range Rank:** A numeric range rank (e.g., G2G3) is used to indicate uncertainty about the exact status of a taxon. Ranges cannot skip more than one rank (e.g., GU should be used rather than G1G4).

**GNR: Not Ranked:** Status has not been assessed.

**GU: Unrankable:** Currently unrankable due to lack of information or due to substantially conflicting information about status or trends. Note: Whenever possible, the most likely rank is assigned and the question mark qualifier is added (e.g., G2?) to express uncertainty, or a range rank (e.g., G2G3) is used to delineate the limits (range) of uncertainty.

**GH: Possibly Extinct/Extirpated:** Known from only historical occurrences, but may nevertheless still be extant; further searching needed.

**GX: Presumed Extinct:** Believed to be extinct throughout its range. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.

### **SUBRANK:**

**T: Taxonomic Subdivision:** Rank applies to a subspecies or variety.

### **QUALIFIERS:**

**?: Inexact Numeric Rank:** Denotes inexact numeric rank. (The ? is not used in combination with range ranks.)

**Q: Questionable Taxonomy:** Distinctiveness of this entity as a taxon or community at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, inclusion of this taxon in another taxon, or inclusion of this community within another community, with the resulting Element having a lower-priority (numerically higher) conservation status rank.

## **STATE RANK**

A numeric rank (S1 through S5) of relative endangerment based primarily on the number of occurrences of the Element (i.e., species, subspecies, or variety) within Missouri. Other factors considered when assigning a rank include: abundance, population trends, distribution, number of protected sites, degree of threat, suitable habitat trends, level of survey effort and life history. Thus, the number of occurrences suggested for each numeric rank below are not absolute guidelines. Missouri species of conservation concern typically do not fall within the range of S4-S5.

**S1: Critically Imperiled:** Critically imperiled in the state because of extreme rarity or because of some factor(s) making it especially vulnerable to extirpation from the state. Typically 5 or fewer occurrences or very few remaining individuals (<1,000).

**S2: Imperiled:** Imperiled in the state because of rarity or because of some factor(s) making it very vulnerable to extirpation from the state. Typically 6 to 20 occurrences or few remaining individuals (1,000 to 3,000).

**S3: Vulnerable:** Vulnerable in the state either because rare and uncommon, or found only in a restricted range (even if abundant at some locations), or because of other factors making it vulnerable to extirpation. Typically 21 to 100 occurrences or between 3,000 and 10,000 individuals.

**S4: Apparently Secure:** Uncommon but not rare, and usually widespread in the state. Possibly of long-term concern. Usually more than 100 occurrences and more than 10,000 individuals.

**S5: Secure:** Common, widespread, and abundant in the state. Essentially ineradicable under present conditions. Typically with considerably more than 100 occurrences and more than 10,000 individuals.

**S#S#: Range Rank:** A numeric range rank (e.g., S2S3) is used to indicate the range of uncertainty about the exact status of the Element. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4).

**S?: Unranked:** Species is not yet ranked in the state. Typically not included in the Checklist.

**SU: Unrankable:** Currently unrankable due to lack of information or due to substantially conflicting information about status or trends. Seeking information to assist in assigning status, and may be included in the Checklist.

**SE: Exotic:** An exotic established in the state; may be native in nearby regions (e.g., house finch or catalpa in eastern U.S.)

**SA: Accidental/Nonregular:** Accidental or casual in the state (i.e., infrequent and outside usual range).

**SP: Potential:** Potentially occurring in the state but no occurrences reported.

**SR: Reported:** Element reported in the state but without persuasive documentation which would provide a basis for either accepting or rejecting (e.g., misidentified specimen) the report.

**SRF: Reported Falsely:** Element erroneously reported in the state and the error has persisted in the literature.

**STATE RANK (Cont.)**

**SH: Historical:** Element occurred historically in the state, with expectation that it may be rediscovered. May not have been verified in the past 20 years and suspected to be still extant.

**SX: Extirpated:** Element is believed to be extirpated from the state.

**QUALIFIERS:**

**?: Inexact or Uncertain:** Denotes inexact or uncertain numeric rank. (The ? qualifies the character immediately preceding it in the SRANK. The ? is not used in combination with range ranks.)



## SPECIES CHANGES

### **STATUS CHANGES**

#### **PLANTS**

*Aristida desmantha* (curly three-awn) from S1 to S2 upon discovering new populations.

*Berberis canadensis* (American barberry) from S2 to S1 because of the reduced vitality of monitored populations.

*Chasmanthium laxum ssp. sessiliflorum* (a spike grass) from SH to SX. Only 1 historical record for this species has been documented (St. Louis County). It is presumed there is no longer suitable habitat in Missouri.

*Cirsium undulatum* (wavy-leaved thistle) from SH to S1 due to a recent discovery by Steve Buback.

*Juncus brachyphyllus* (small-headed rush) from SH to S1 due to recent discoveries in Reynolds and Carter counties.

*Trifolium carolinianum* (Carolina clover) from SH to S1 upon recent discovery of a population on a chert glade in Newton Co. This was the first recorded occurrence in MO since 1923.

*Viburnum bracteatum* (Ozark arrow-wood) from S2S3 to S1S2 due to the global ranking assigned by NatureServe as G1G2.

#### **MOLLUSKS**

*Lampsilis rafinesqueana* (Neosho Mucket) was listed as Endangered by the U.S. Fish and Wildlife Service on October 17, 2013.

*Quadrula cylindrica cylindrica* (Rabbitsfoot) was listed as Threatened by the U.S. Fish and Wildlife Service on October 17, 2013.

*Cumberlandia monodonta* (Spectaclecase) was listed as Endangered by the U.S. Fish and Wildlife Service on April 12, 2012.

#### **INSECTS**

*Formica fossiceps* (Haystack Thatching Ant) from SU to S1 because they appear to be limited to tallgrass prairie remnants in the northwest corner of Missouri; they have not yet been found in nearby restoration prairie plantings.

*Formica querquetulana* (Oak-grove Ant) from S3 to S1 because prescribed fires associated with ecological management programs have apparently been deleterious to the two known populations.

#### **FISH**

*Cottus specus* (Grotto Sculpin) was listed as Endangered by the U.S. Fish and Wildlife Service on September 25, 2013, due to the species' confined range and threats to water quality and physical habitat.

## **STATUS CHANGES (Cont.)**

### **AMPHIBIANS**

*Ambystoma tigrinum* (Eastern Tiger Salamander) from SU to S3 due to recent survey work indicating low abundance of the species.

*Anaxyrus cognatus* (Great Plains Toad) from SU to S3 due to recent survey work and limited distribution of this species to Missouri River floodplain.

### **MAMMALS**

*Corynorhinus rafinesquii* (Rafinesque's Big-eared Bat) from SU to S1 due to a few new observations and reproductive record from southeast Missouri.

*Ictidomys tridecemlineatus* (Thirteen-lined Ground Squirrel) from SU to S2 due to a recent review of their known Missouri range.

*Myotis leibii* (Eastern Small-footed Myotis) from SU to S2 due to a few new observations in south central Missouri.

*Myotis septentrionalis* (Northern Long-eared Myotis) was classified as proposed endangered by the U.S. Fish and Wildlife Service on October 2, 2013.

*Perognathus flavescens* (Plains Pocket Mouse) from S2 to S1 due to the lack of observations during recent surveys in north Missouri.

*Taxidea taxus* (American Badger) from SU to S3 due to information gathered during a recent reproduction study.

## **ADDITIONS**

### **PLANTS**

*Amorpha nitens* (shining false indigo) as S1. Documented within Missouri due to a recent discovery on Big Cane Creek CA by Jacob Hadle.

*Asclepias exaltata* (poke milkweed) as S1. Documented within Missouri due to a recent discovery in Cape Girardeau County by Chris Crabtree.

*Asplenium bradleyi* (Bradley's spleenwort) as SU. Historically was found on acidic bluffs, but abundance has been declining.

*Asplenium pinnatifidum* (lobed spleenwort) as SU. Historically was found on acidic bluffs, but abundance has been declining.

*Asplenium trichomanes* ssp. *trichomanes* (maidenhair spleenwort) as SU. Historically was found on acidic bluffs, but abundance has been declining.

*Carex inops* ssp. *heliophila* (sun sedge) as SU. It is both uncommon in northern Missouri and easy to misidentify it as more common *Carex* species.

## **ADDITIONS (Cont.)**

### **PLANTS (Cont.)**

*Carex woodii* (a sedge) as S1. There are only a few known populations within Howell Co.

*Elatine triandra* var. *americana* (waterwort) as SH. *Elatine triandra* (formally ranked as SH) was recently divided into different varieties.

*Elatine triandra* var. *triandra* (waterwort) as SH. This species was recently subdivided into different varieties.

*Eleocharis parvula* (small spike rush) as SU due to the lack of recently documented locations.

*Elymus glaucous* (blue wild rye) as SU. Only 3 records have been found since 1990.

*Euphorbia ouachitana* (a spurge) as SU. This species was recently split from *Euphorbia commutata* and was found in Missouri.

*Fimbristylis perpusilla* (Harper's fimbry) as SH. A herbarium specimen from 1897 was discovered for this species. The collection was taken from Butler Co. in a "dried up lake". This is the only recorded occurrence of this species within MO.

*Lathyrus venosus* (Bushy vetchling) as SU. This species was once fairly common but populations are declining and are not producing flowering stems.

*Melothria pendula* (creeping cucumber) as S3 due to not being found regularly. When it is located, it has large mat-forming populations

*Muhlenbergia cuspidata* (plains muhly) as SU. Observed populations of this species have declined.

*Physalis missouriensis* (Missouri groundcherry) as SU. Few populations of this species have been recently recorded in MO.

*Portulaca pilosa* (kiss me quick) as SU. More information is needed because of specific habitat requirements and uncertainty of population stability. Currently it is typically found in disturbed areas near sand prairies.

*Viola affinis* (sand violet) as S1. Large and isolated populations of this species have recently suffered loss due to flood events.

Uncommon species for which the Missouri Botanical Garden (MBG) has no recent documented occurrences. These species will be added to the SOCC list as SU until more information is gathered.

Scientific Name	Common Name	Most recent specimen at the MBG
<i>Baptisia sphaerocarpa</i>	round-fruited yellow wild indigo	1966
<i>Bidens beckii</i>	water marigold	1846
<i>Callitriche palustris</i>	vernal water starwort	1979
<i>Castanea pumila</i> var. <i>pumila</i>	chinquapin	1934
<i>Chenopodium berlandieri</i> var. <i>boscianum</i>	pitseed goosefoot	1986
<i>Cicuta maculata</i> var. <i>bolanderi</i>	common water hemlock	1967
<i>Cirsium hillii</i>	Hill's thistle	1979
<i>Corispermum americanum</i>	American bugseed	1920
<i>Corydalis aurea</i> ssp. <i>aurea</i>	golden corydalis	1897
<i>Crataegus berberifolia</i> var. <i>berberifolia</i>	barberry-leaved hawthorn	1905
<i>Crataegus collina</i> var. <i>lettermanii</i>	hillside hawthorn	1956
<i>Crataegus collina</i> var. <i>sordida</i>	hillside hawthorn	1917
<i>Crataegus fecunda</i>	St. Clair hawthorn	1983
<i>Crataegus lanuginosa</i>	woolly hawthorn	1960
<i>Crataegus macrosperma</i>	Eastern hawthorn	1921
<i>Crataegus margarettae</i> var. <i>brownii</i>	Margaret's hawthorn	1941
<i>Crataegus pruinosa</i> var. <i>magnifolia</i>	frosty hawthorn	1932
<i>Crataegus schuettei</i>	royal hawthorn	1915
<i>Crataegus spes-aestatum</i>	Summers hawthorn	1957
<i>Crataegus succulenta</i> var. <i>succulenta</i>	succulent hawthorn	1923
<i>Crataegus texana</i> var. <i>dasyphylla</i>	Texas red hawthorn	1930
<i>Crataegus transmississippiensis</i>	a hawthorn	1926
<i>Crataegus viridis</i> var. <i>nitens</i>	green hawthorn	1920
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	Peruvian dodder	1986
<i>Dalea villosa</i> var. <i>villosa</i>	silky prairie clover	1896
<i>Fraxinus biltmoreana</i>	Biltmore ash	1928
<i>Galium asprellum</i>	rough bedstraw	1953
<i>Helianthus decapetalus</i>	thin-leaved sunflower	1984
<i>Heteranthera reniformis</i>	mud plantain	1955
<i>Houstonia rosea</i>	rose bluets	1931
<i>Leavenworthia torulosa</i>	necklace goldcress	1882
<i>Ludwigia linearis</i>	narrow-leaved primrose	1894
<i>Maianthemum stellatum</i>	starry false Solomon's seal	1954
<i>Mirabilis linearis</i> var. <i>linearis</i>	narrow-leaved four-o'clock	1955
<i>Oenothera grandis</i>	cut-leaved evening primrose	1971
<i>Oenothera parviflora</i>	Northern evening primrose	1937
<i>Penstemon tenuis</i>	Gulf Coast beard-tongue	1985
<i>Persicaria bicornis</i>	pink smartweed	1954
<i>Physalis grisea</i>	strawberry-tomato	1981
<i>Plantago heterophylla</i>	slender plantain	1954
<i>Proserpinaca palustris</i> var. <i>palustris</i>	mermaid weed	1919
<i>Pseudognaphalium micradenium</i>	rabbit tobacco	1936
<i>Pteridium aquilinum</i> var. <i>pseudocaudatum</i>	Bracken	1986
<i>Rubus plicatifolius</i>	a blackberry	1951
<i>Rubus rosa</i>	rose blackberry	1953
<i>Rubus satis</i>	Ithaca blackberry	1968
<i>Sagina procumbens</i>	matted pearlwort	1875
<i>Solanum elaeagnifolium</i>	white horse nettle	1961
<i>Solidago rigida</i> ssp. <i>humilis</i>	stiff goldenrod	1922
<i>Symphyotrichum patens</i> var. <i>gracile</i>	spreading aster	1980
<i>Tilia americana</i> var. <i>heterophylla</i>	white basswood	1955

## **ADDITIONS (Cont.)**

### **CRUSTACEANS**

*Cambarus polychromatus* (Paintedhand Mudbug) as S1S2. This species is a primary burrowing crayfish that was previously known from Alabama, Illinois, Indiana, Kentucky, Tennessee, and Virginia. It was never known from Missouri, but was newly-discovered in Missouri during summer 2013. That taxonomic identification has been verified by the country's top working crayfish taxonomist (Dr. Chris Taylor, Illinois Natural History Survey). The species is listed as "Currently Stable ("G5") by the American Fisheries Society's endangered species committee and NatureServe gives it the same G5 rank; it is a species of "Least Concern" on the IUCN "Redlist". However, because it has been collected in Missouri only one time at one location, the Missouri Crayfish Species of Conservation Concern Workgroup (R. DiStefano, D. Fantz, C. Rabeni, C. Riggert, J. Westhoff) recommends assigning a State Rank of "S1S2" and a Global Rank of "G5".

### **INSECTS**

*Polyergus longicornis* (Long-horned Shining Amazon Ant) as S1 based on a recent revision of the genus by J. C. Trager; this is a southern species known from only one collection in southeastern Missouri.

*Polyergus montivagus* (Foothills Shining Amazon Ant) as S1 based on a recent revision of the genus by J. C. Trager; this species is known from only two locations in eastern Missouri.

*Polyergus ruber* (Ruby-red Shining Amazon Ant) as S1 based on a recent revision of the genus by J. C. Trager; this is a southeastern species known from only two locations in eastern Missouri.

*Polyergus sanwaldi* (Sanwald's Shining Amazon Ant) as S1 based on a recent revision of the genus by J. C. Trager; this is a northern species known from only one location in northeastern Missouri.

### **REPTILES**

*Pantherophis ramspotti* (Western Foxsnake) as S1 due to genetic evidence.

*Pituophis catenifer sayi* (Bullsnake) was added as SU due to limited knowledge of its status, distribution, and preference of native grasslands.

## **DELETIONS**

### **PLANTS**

*Camassia angusta* (a wild hyacinth) staying as S3, but many new populations were discovered so it no longer needs to be tracked.

*Carex nigromarginata* var. *floridana* (a sedge) from S1 to SRF. Evaluations of herbarium specimens indicate that this variety was reported falsely within Missouri.

*Carex stricta* (tussock sedge) from S3 to S4 because it is found in many native fens and swales in northern Missouri and it no longer needs to be tracked.

*Cyperus grayoides* (an umbrella sedge) staying as S3, but is commonly found on sand prairies in Missouri and no longer needs to be tracked.

## **DELETIONS (Cont.)**

### **PLANTS (Cont.)**

*Cyperus polystachyos* var. *texensis* (many-spiked Cyperus) from S2S3 to S4. It is commonly found on sand prairies and woodlands in southeastern Missouri.

*Elatine triandra* (waterwort). This species has been subdivided into two different varieties, both of which will be added to the SOCC checklist.

*Lycopodium digitatum* (running ground cedar) from S2 to S3. This species is more widespread than previously thought and appears to be increasing its range.

*Phlox carolina* ssp. *angusta* (Carolina phlox) from S1 to SRF. This species was misidentified and now known to be *Phlox glaberrima* ssp. *interior*.

*Phlox carolina* ssp. *carolina* (Carolina phlox) from SH to SRF. This species was misidentified and now known to be *Phlox glaberrima* ssp. *interior*.

*Polypremum procumbens* (Juniper-leaf) from S2 to S4. It is found to be more common in southern Missouri than previously thought.

*Rosa virginiana* (a rose) from SU to SRF. Voucher specimens were found to be misidentified.

*Rubus missouricus* (prickly groundberry) from SH to S4 due to recent studies of species present in MO and within the *Rubus* genus. This species has been found to be more common than previously thought.

### **INSECTS**

*Ponera exotica* (An Ant) from S3 to S5 because they are now known to occur widely wherever there are well-drained, acidic soils throughout the Ozarks.

### **AMPHIBIANS**

*Necturus maculosus maculosus* (Common Mudpuppy) from SU to S4 due to abundance of the subspecies.

*Necturus maculosus louisianensis* (Red River Mudpuppy) from SU to S4 due to abundance of the subspecies.

## **TAXONOMIC CHANGES**

### **PLANTS**

Name changes to reconcile with the taxonomic concepts used by the Flora of Missouri Project, which published Steyermark's Flora of Missouri:

#### **Old Name**

*Anemone quinquefolia*  
*Berula erecta* var. *incisum*  
*Caltha palustris* var. *palustris*  
*Carex tenera* var. *echinodes*  
*Cyclachaena xanthifolia*  
*Dodecatheon amethystinum*  
*Dodecatheon frenchii*  
*Echinodorus tenellus* var. *parvulus*  
*Fragaria vesca* var. *americana*  
*Galium boreale* ssp. *septentrionale*  
*Gaura coccinea*  
*Gratiola viscidula* ssp. *viscidula*  
*Hedyotis boscii*  
*Hedyotis uniflora*  
*Linum floridanum*  
*Malvastrum hispidum*  
*Opuntia macrorhiza*  
*Orobanche ludoviciana*  
*Orobanche multiflora*  
*Panicum hians*  
*Penstemon cobaea* var. *cobaea*  
*Phlox bifida* ssp. *stellaria*  
*Phyla nodiflora* var. *incisa*  
*Polygonella americana*  
*Polygonum amphibium* var. *stipulaceum*  
*Polygonum arifolium*  
*Polygonum densiflorum*  
*Polygonum punctatum* var. *majus*  
*Potentilla nicolletii*  
*Salix eriocephala* var. *famelica*  
*Sapindus drummondii*  
*Spermolepis divaricata*  
*Stenosiphon linifolius*  
*Viburnum ozarkense*  
*Vicia ludoviciana* var. *leavenworthii*  
*Viola macloskeyi* ssp. *pallens*  
*Waldsteinia fragarioides* ssp. *fragarioides*

#### **Revised Name**

*Anemone quinquefolia* var. *quinquefolia*  
*Berula erecta* var. *incisa*  
*Caltha palustris*  
*Carex echinodes*  
*Cyclachaena xanthiifolia*  
*Primula fassettii*  
*Primula frenchii*  
*Helanthium tenellum*  
*Fragaria vesca*  
*Galium boreale*  
*Oenothera suffrutescens*  
*Gratiola viscidula*  
*Oldenlandia boscii*  
*Oldenlandia uniflora*  
*Linum floridanum* var. *floridanum*  
*Malvastrum angustum*  
*Opuntia macrorhiza* var. *macrorhiza*  
*Orobanche riparia*  
*Orobanche ludoviciana*  
*Steinchisma hians*  
*Penstemon cobaea*  
*Phlox bifida*  
*Lippia nodiflora*  
*Polygonum americanum*  
*Persicaria amphibia* var. *stipulacea*  
*Persicaria arifolia*  
*Persicaria glabra*  
*Persicaria robustior*  
*Potentilla supina* ssp. *paradoxa*  
*Salix famelica*  
*Sapindus saponaria* var. *drummondii*  
*Spermolepis diffusa*  
*Oenothera glaucifolia*  
*Viburnum bracteatum*  
*Vicia ludoviciana* ssp. *leavenworthii*  
*Viola pallens*  
*Geum fragarioides*

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### **LIVERWORTS AND HORNWORTS**

*Riccia sullivantii*

*Riccia huebeneriana* ssp. *sullivantii*

## **TAXONOMIC CHANGES (Cont.)**

### **REPTILES**

*Pantherophis vulpinus* (Western Foxsnake) has been separated into *Pantherophis vulpinus* and *Pantherophis ramspotti* in Missouri due to recent genetic evidence. Due to naming priority *Pantherophis vulpinus* will be named the Eastern Foxsnake and *Pantherophis ramspotti* will be named the Western Foxsnake. All populations in the northwest part of their range in Missouri are now classified as *Pantherophis ramspotti*. Populations occurring along the Mississippi River floodplain in Missouri north from St. Louis are now classified as *Pantherophis vulpinus*. There is some indication that populations in Lewis and Clark counties might be hybrids between Eastern and Western Foxsnakes. These individuals will be classified as Eastern Foxsnakes until further genetic evidence is provided.

*Sistrurus catenatus catenatus* (Eastern Massasauga) and *Sistrurus catenatus tergeminus* (Western Massasauga) have been elevated to full species status. Eastern Massasauga will now be recognized as *Sistrurus catenatus*. The subspecies of the Western Massasauga group in Missouri will now be recognized as the Prairie Massasauga (*Sistrurus tergeminus tergeminus*).

### **MAMMALS**

*Bos bison* to *Bison bison* (American Bison).



## TERRESTRIAL NATURAL COMMUNITIES

In addition to lichens, plants, and animals, the Missouri Natural Heritage Program tracks occurrences of high quality natural communities. Terrestrial natural communities are interrelated assemblages of plants, animals, and other living organisms incorporated into their physical surroundings- including geologic substrate, soils, topography and aspect- that are shaped by climate and other natural processes. High quality sites are ones that provide diverse assemblages of native species and represent the least distressed examples of ecosystems that existed in Missouri prior to European settlement. These natural communities frequently provide the habitat necessary for Missouri's listed lichens, plants, and animals. Examples of high-quality aquatic natural communities are included in the Natural Heritage Database, although SRANKS have not been assigned to individual aquatic natural community types. Because the Missouri Department of Conservation tracks occurrences of high quality natural communities, we encourage the submission of site information on natural communities as we do for species listed in this Checklist.

State ranks are assigned to natural communities using criteria that are similar to species SRANKs. (Criteria include total number of occurrences, number of occurrences by grade [A-D], total acres, number of counties in which the community type occurs, number of protected occurrences, and threats.) Global ranks are not applied to communities due to the difficulty in reconciling Missouri's classification system with larger scale classifications.

Natural community types have been classified using The Terrestrial Natural Communities of Missouri (Nelson, 2005). This classification system was developed to accomplish an inventory of the state's natural communities, prioritized by quality, size and distribution, to help meet land protection goals. The Terrestrial Natural Communities tracked in Heritage (high-quality examples) are listed below with their SRANKs by major community type.

### **COMMUNITY TYPE**

#### **FOREST**

#### **SRANK**

Dry-Mesic Loess/Glacial Till Forest	S3
Mesic Loess/Glacial Till Forest	S3
Dry-Mesic Limestone/Dolomite Forest	S3
Mesic Limestone/Dolomite Forest	S3
Dry-Mesic Chert Forest	S4
Dry-Mesic Sandstone Forest	S3
Mesic Sandstone Forest	S2
Dry-Mesic Sand Forest	S1
Mesic Sand Forest	S1
Dry-Mesic Igneous Forest	S4
Dry-Mesic Bottomland Forest	S3
Mesic Bottomland Forest	S2
Wet-Mesic Bottomland Forest	S2
Wet Bottomland Forest	S3
Riverfront Forest	S4
<b>Total Forest Types:</b>	<b>15</b>

<b>WOODLAND</b>	<b><u>SRANK</u></b>
Dry Loess/Glacial Till Woodland	S3
Dry-Mesic Loess/Glacial Till Woodland	S3
Dry Limestone/Dolomite Woodland	S3
Dry-Mesic Limestone/Dolomite Woodland	S3
Dry Chert Woodland	S4
Dry-Mesic Chert Woodland	S4
Dry Sandstone Woodland	S3
Dry-Mesic Sandstone Woodland	S3
Dry Sand Woodland	S1
Dry-Mesic Sand Woodland	S2
Dry Igneous Woodland	S4
Dry-Mesic Igneous Woodland	S4
Upland Flatwoods	S2
Bottomland Flatwoods	S1
Sinkhole Flatwoods	S2
Dry-Mesic Bottomland Woodland	S2
Mesic Bottomland Woodland	SH
Wet-Mesic Bottomland Woodland	S1
<b>Total Woodland Types:</b>	<b>18</b>

<b>SAVANNA</b>	<b><u>SRANK</u></b>
Dry-Mesic Loess/Glacial Till Savanna	S1
Mesic Loess/Glacial Till Savanna	SH
Limestone/Dolomite Savanna	SH
Chert Savanna	SH
Sandstone/Shale Savanna	SH
Sand Savanna	S1
<b>Total Savanna Types:</b>	<b>6</b>

<b>PRAIRIE</b>	<b><u>SRANK</u></b>
Dry Loess/Glacial Till Prairie	S2
Dry-Mesic Loess/Glacial Till Prairie	S1
Mesic Loess/Glacial Till Prairie	S1
Dry Limestone/Dolomite Prairie	S2
Dry-Mesic Limestone/Dolomite Prairie	S2
Dry-Mesic Chert Prairie	S3
Dry-Mesic Sandstone/Shale Prairie	S3
Sand Prairie	S1
Prairie Swale	S2
Hardpan Prairie	S2
Wet-Mesic Bottomland Prairie	S1
Wet Bottomland Prairie	S1
<b>Total Prairie Types:</b>	<b>12</b>

<b>GLADE</b>	<b><u>SRANK</u></b>
Limestone Glade	S2
Dolomite Glade	S3
Chert Glade	S2
Sandstone Glade	S2
Igneous Glade	S3
<b>Total Glade Types:</b>	<b>5</b>

<b>CLIFF/TALUS</b>	<b><u>SRANK</u></b>
Dry Limestone/Dolomite Cliff	S5
Moist Limestone/Dolomite Cliff	S4
Dry Sandstone Cliff	S4
Moist Sandstone Cliff	S3
Dry Chert Cliff	S3
Moist Chert Cliff	S2
Dry Igneous Cliff	S4
Moist Igneous Cliff	S4
Unconsolidated Bluff	S3
Limestone/Dolomite Talus	S4
Igneous Talus	S4
<b>Total Cliff/Talus Types:</b>	<b>11</b>

<b>STREAM EDGE</b>	<b><u>SRANK</u></b>
Sand Bar	S3
Gravel Wash	S3
Stream Bank/River Bank	S2
<b>Total Stream Edge Types:</b>	<b>3</b>

<b>WETLAND</b>	<b><u>SRANK</u></b>
Marsh	S2
Shrub Swamp	S2
Swamp	S1
Pond Marsh	S1
Pond Shrub Swamp	S2
Pond Swamp	S1
Ozark Fen	S2
Prairie Fen	S2
Forested Fen	S2
Glacial Fen	S1
Acid Seep	S2
Saline Seep	S1
Limestone/Dolomite Spring	S3
<b>Total Wetland Types:</b>	<b>13</b>

<b>CAVE</b>	<b><u>SRANK</u></b>
Cave	S4
Cave Spring	S4
Spring	S4
<b>Total Cave Types:</b>	<b>3</b>
<b>Total Terrestrial Natural Communities:</b>	<b>86</b>

## THREATENED AND ENDANGERED SPECIES IN MISSOURI

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATE<sup>1</sup></u> <u>STATUS</u>	<u>FEDERAL<sup>2</sup></u> <u>STATUS</u>
<b>PLANTS</b>			
<i>Asclepias meadii</i>	Mead's Milkweed	Endangered	Threatened
<i>Boltonia decurrens</i>	Decurrent False Aster	Endangered	Threatened
<i>Geocarpum minimum</i>	Geocarpum	Endangered	Threatened
<i>Helenium virginicum</i>	Virginia Sneezeweed	Endangered	Threatened
<i>Isotria medeoloides</i>	Small Whorled Pogonia <sup>3</sup>	Endangered	Threatened
<i>Lindera melissifolia</i>	Pondberry	Endangered	Endangered
<i>Physaria filiformis</i>	Missouri Bladder-pod	Endangered	Threatened
<i>Platanthera leucophaea</i>	Eastern Prairie Fringed Orchid <sup>3</sup>	Endangered	Threatened
<i>Platanthera praeclara</i>	Western Prairie Fringed Orchid	Endangered	Threatened
<i>Trifolium stoloniferum</i>	Running Buffalo Clover	Endangered	Endangered
<b>MOLLUSKS</b>			
<i>Antrobia culveri</i>	Tumbling Creek Cavesnail		Endangered
<i>Cumberlandia monodonta</i>	Spectaclecase		Endangered
<i>Elliptio crassidens</i>	Elephantear	Endangered	
<i>Epioblasma florentina curtisii</i>	Curtis Pearlymussel	Endangered	Endangered
<i>Epioblasma triquetra</i>	Snuffbox	Endangered	Endangered
<i>Fusconaia ebena</i>	Ebonyshell	Endangered	
<i>Lampsilis abrupta</i>	Pink Mucket	Endangered	Endangered
<i>Lampsilis higginsii</i>	Higgins Eye	Endangered	Endangered
<i>Lampsilis rafinesqueana</i>	Neosho Mucket		Endangered
<i>Leptodea leptodon</i>	Scaleshell	Endangered	Endangered
<i>Plethobasus cyphus</i>	Sheepnose	Endangered	Endangered
<i>Potamilus capax</i>	Fat Pocketbook	Endangered	Endangered
<i>Quadrula fragosa</i>	Winged Mapleleaf	Endangered	Endangered
<i>Quadrula cylindrica cylindrica</i>	Rabbitsfoot		Threatened
<b>CRUSTACEANS</b>			
<i>Cambarus aculabrum</i>	Cave Crayfish		Endangered
<b>INSECTS</b>			
<i>Nicrophorus americanus</i>	American Burying Beetle <sup>3</sup>	Endangered	Endangered
<i>Somatochlora hineana</i>	Hine's Emerald	Endangered	Endangered
<b>FISH</b>			
<i>Acipenser fulvescens</i>	Lake Sturgeon	Endangered	
<i>Amblyopsis rosae</i>	Ozark Cavefish	Endangered	Threatened
<i>Cottus specus</i>	Grotto Sculpin		Endangered
<i>Crystallaria asprella</i>	Crystal Darter	Endangered	
<i>Etheostoma cragini</i>	Arkansas Darter		Candidate
<i>Etheostoma fusiforme</i>	Swamp Darter	Endangered	
<i>Etheostoma histrio</i>	Harlequin Darter	Endangered	
<i>Etheostoma nianguae</i>	Niangua Darter	Endangered	Threatened
<i>Etheostoma parvipinne</i>	Goldstripe Darter	Endangered	
<i>Etheostoma whipplei</i>	Redfin Darter	Endangered	
<i>Forbesichthys agassizii</i>	Spring Cavefish	Endangered	
<i>Hybognathus hayi</i>	Cypress Minnow	Endangered	
<i>Notropis maculatus</i>	Taillight Shiner	Endangered	
<i>Notropis sabinae</i>	Sabine Shiner	Endangered	
<i>Notropis topeka</i>	Topeka Shiner	Endangered	Endangered
<i>Noturus eleutherus</i>	Mountain Madtom	Endangered	
<i>Noturus placidus</i>	Neosho Madtom	Endangered	Threatened
<i>Percina nasuta</i>	Longnose Darter	Endangered	
<i>Platygobio gracilis</i>	Flathead Chub	Endangered	

## THREATENED AND ENDANGERED SPECIES IN MISSOURI (Cont.)

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATE<sup>1</sup> STATUS</u>	<u>FEDERAL<sup>2</sup> STATUS</u>
<b>FISH (Cont.)</b>			
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	Endangered	Endangered
<i>Scaphirhynchus platyrhynchus</i>	Shovelnose Sturgeon		Threatened/SA
<i>Umbra limi</i>	Central Mudminnow	Endangered	
<b>AMPHIBIANS</b>			
<i>Cryptobranchus a. alleganiensis</i>	Eastern Hellbender	Endangered	
<i>Cryptobranchus a. bishopi</i>	Ozark Hellbender	Endangered	Endangered
<b>REPTILES</b>			
<i>Deirochelys reticularia miaria</i>	Western Chicken Turtle	Endangered	
<i>Emydoidea blandingii</i>	Blanding's Turtle		Endangered
<i>Kinosternon flavescens</i>	Yellow Mud Turtle	Endangered	
<i>Nerodia cyclopion</i>	Mississippi Green Watersnake <sup>3</sup>	Endangered	
<i>Sistrurus catenatus</i>	Eastern Massasauga <sup>3</sup>	Endangered	Candidate
<i>Sistrurus tergeminus tergeminus</i>	Prairie Massasauga	Endangered	
<b>BIRDS</b>			
<i>Botaurus lentiginosus</i>	American Bittern	Endangered	
<i>Circus cyaneus</i>	Northern Harrier	Endangered	
<i>Egretta thula</i>	Snowy Egret	Endangered	
<i>Falco peregrinus</i>	Peregrine Falcon	Endangered	
<i>Limnithlypis swainsonii</i>	Swainson's Warbler	Endangered	
<i>Peaacea aestivalis</i>	Bachman's Sparrow	Endangered	
<i>Rallus elegans</i>	King Rail	Endangered	
<i>Sterna antillarum athalassos</i>	Interior Least Tern	Endangered	Endangered
<i>Tympanuchus cupido</i>	Greater Prairie-chicken	Endangered	
<b>MAMMALS</b>			
<i>Canus lupus</i>	Gray Wolf		Endangered
<i>Corynorhinus townsendii ingens</i>	Ozark Big-eared Bat <sup>3</sup>	Endangered	Endangered
<i>Lepus californicus</i>	Black-tailed Jackrabbit	Endangered	
<i>Myotis grisescens</i>	Gray Bat	Endangered	Endangered
<i>Myotis septentrionalis</i>	Northern Long-eared Myotis		Proposed
			Endangered
<i>Myotis sodalis</i>	Indiana Bat	Endangered	Endangered
<i>Spilogale putorius interrupta</i>	Plains Spotted Skunk	Endangered	

<sup>1</sup> Listed in the Wildlife Code of Missouri, Rule 3 CSR10-4, 111 Endangered Species.

<sup>2</sup> Federally Listed Species under the Endangered Species Act (ESA) of 1973 as Amended:

Endangered = Any species that is in danger of extinction throughout all or a significant portion of its range.

Threatened = Any species that is likely to become endangered within the foreseeable future.

Candidate = Plants or animals that the U.S. Fish & Wildlife Service is reviewing for possible addition to the list of Endangered and Threatened species.

Proposed = Any species proposed for listing as Threatened or Endangered by the U.S. Fish & Wildlife Service.

Threatened/SA = Any species listed Threatened due to Similarity of Appearance by the U.S. Fish & Wildlife Service.

<sup>3</sup> Considered extirpated, historical or accidental occurrence in Missouri.

## SPECIES AND STATUSES

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>LICHENS</b>					
<i>Cladonia cervicornis</i> ssp. <i>verticillata</i>	A Lichen	S?	G5TNR		
<i>Cladonia leporina</i>	A Lichen	S2	G4G5		
<i>Coenogonium missouriense</i>	Missouri Cave Lichen	SH	GH		
<i>Collema nigrescens</i>	A Lichen	SU	G5?		
<i>Dendroscopula intricatulum</i>	A Lichen	S?	GUQ		
<i>Dermatocarpon moulinsii</i>	A Lichen	S1	GNR		
<i>Dibaeis absoluta</i>	A Lichen	S1	G4		
<i>Flavoparmelia rutidota</i>	A Lichen	S?	G4G5		
<i>Graphina sophisticascens</i>	A Lichen	SH	GNR		
<i>Imshaugia aleurites</i>	A Lichen	S?	G5		
<i>Lecidea lurida</i>	A Lichen	SU	GNR		
<i>Pannaria rubiginosa</i>	A Lichen	S1	G4G5		
<i>Parmelia squarrosa</i>	A Lichen	S?	G5		
<i>Parmelina horrescens</i>	A Lichen	S1	G5		
<i>Parmotrema hypoleucinum</i>	A Lichen	S1	G4G5		
<i>Parmotrema madagascariaceum</i>	A Lichen	S?	G3G5		
<i>Parmotrema tinctorum</i>	A Lichen	S2	G5?		
<i>Pseudocyphellaria aurata</i>	A Lichen	S1	G3G5		
<i>Psora icterica</i>	A Lichen	S1	G5?		
<i>Pycnothelia papillaria</i>	A Lichen	S1	G3G5		
<i>Ramalina intermedia</i>	A Lichen	S1	G4G5		
<i>Rimelia subsidiosa</i>	A Lichen	S1	G4G5		
<i>Tuckermannopsis ciliaris</i>	A Lichen	S?	G3G5		
<i>Usnea angulata</i>	A Lichen	S1	G3G5		
<i>Xanthoparmelia australasica</i>	A Lichen	S1	G5		
<b>Total Lichen Records: 25</b>					
<b>LIVERWORTS AND HORNWORTS</b>					
<i>Aneura maxima</i>	A Liverwort	SU	G4?		
<i>Anthoceros agrestis</i>	A Hornwort	S?	G4G5		
<i>Bazzania trilobata</i> var. <i>depauperata</i>	A Liverwort	SU	G5TUQ		
<i>Bazzania trilobata</i> var. <i>trilobata</i>	A Liverwort	S1	G5TUQ		
<i>Calypogeia muelleriana</i> ssp. <i>muelleriana</i>	A Liverwort	SU	G5T5		
<i>Calypogeia sullivantii</i>	A Leafy Liverwort	SU	G4		
<i>Cephalozia catenulata</i>	A Liverwort	SU	G5		
<i>Cephalozia connivens</i>	A Liverwort	SU	G5		
<i>Jungermannia leiantha</i>	A Liverwort	SU	G5		
<i>Kurzia setacea</i>	A Liverwort	S1	G4G5		
<i>Kurzia sylvatica</i>	A Liverwort	S1	G5		
<i>Leucolejeunea unciloba</i>	A Liverwort	S1	G4G5		
<i>Lophozia incisa</i>	A Liverwort	SU	G5		
<i>Marchantia aquatica</i>	A Liverwort	SU	GNR		
<i>Marsupella sphacelata</i>	A Liverwort	S1	G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>LIVERWORTS AND HORNWORTS (Cont.)</b>					
Metzgeria conjugata	A Liverwort	S1S2	G5		
Metzgeria furcata	A Liverwort	S?	G5		
Nardia lescurii	A Liverwort	S?	G3?		
Notothylas orbicularis	A Hornwort	S1	G5		
Nowellia curvifolia	A Liverwort	S?	G5		
Odontoschisma denudatum	A Liverwort	SU	G5		
Oxymitra incrassata	A Liverwort	S1	GNR		
Phaeoceros oreganus	A Hornwort	S1	GNRQ		
Plagiochasma wrightii	A Liverwort	SH	G3?		
Ptilidium pulcherrimum	A Liverwort	S1	G5		
Radula australis	A Liverwort	SR	G3G4		
Rectolejeunea maxonii	A Liverwort	S1	G4		
Riccardia multifida	A Liverwort	S1	G5		
Riccardia palmata	A Liverwort	S1	G5		
Riccia austini	A Liverwort	SU	G5		
Riccia bifurca	A Liverwort	SU	G5		
Riccia cavernosa	A Liverwort	SU	G5		
Riccia crystallina	A Liverwort	SU	G4G5		
Riccia frostii	A Liverwort	SU	G5		
Riccia hirta	A Liverwort	SU	G5		
Riccia huebeneriana ssp. sullivantii	A Liverwort	S?	G4Q		
Riccia macallisteri	A Liverwort	SU	G2G4		
Riccia nigrella	A Liverwort	SU	G4G5		
Riccia ozarkiana	A Liverwort	SH	G1G2		
Riccia sorocarpa	A Liverwort	SU	G5		
<b>Total Liverwort and Hornwort Records: 40</b>					
<b>MOSESSES</b>					
Acaulon muticum var. muticum	A Moss	SU	G4G5TNR		
Amblystegium polygamum	A Moss	S1	G5		
Amblystegium protensum	A Moss	SU	G5T3T5		
Amblystegium radicale	A Moss	SU	G3G5		
Anacamptodon splachnoides	Knothole Moss	SU	G3G5		
Anomobryum filiforme	A Moss	S1	G4G5		
Archidium alternifolium	A Moss	S1	G4G5		
Astomum phascoides	A Pygmy Moss	SU	G3G4		
Atrichum crispulum	A Moss	SU	GNR		
Atrichum cylindricum	A Moss	SU	G5		
Brachelyma subulatum	A Moss	S1	G4G5		
Brachythecium campestre	A Moss	SU	G4G5Q		
Brachythecium salebrosum var. salebrosum	A Moss	SU	G5TNR		
Bruchia texana	A Moss	SU	G3G5		
Bryhnia novae-angliae	A Moss	SU	G5		
Bryoxiphium norvegicum	Sword Moss	S1	G5?		
Bryum algovicum var. algovicum	A Moss	S1	G4G5TNR		
Bryum cyclophyllum	A Moss	S?	G4G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>MOSESSES (Cont.)</b>					
Bryum flaccidum	A Moss	SU	G5		
Bryum klinggraeffii	A Moss	S?	G4G5		
Bryum miniatum	A Moss	S1	G4G5		
Bryum pallescens	A Moss	SU	G5		
Bryum ruderae	A Moss	SU	G3G5		
Bryum subapiculatum	A Moss	SX	G5?		
Bryum uliginosum	A Moss	S1	G3G5		
Calliergonella cuspidata	A Moss	S?	G5		
Campylopodia stenocarpa	A Moss	S1	G5		
Campylopus tallulensis	A Moss	S1	G4		
Dichelyma capillaceum	A Moss	S1	G5		
Dicranella rufescens	A Moss	S1S2	G5?		
Dicranum polysetum	A Moss	S1	G5		
Didymodon revolutus	A Moss	S1	G4		
Didymodon rigidulus var. rigidulus	A Moss	S1	G5T4?		
Ditrichum rhynchostegium	A Moss	SU	G3G5		
Drepanocladus aduncus var. kneiffii	A Moss	SU	G5T4T5		
Encalypta procera	Extinguisher Moss	S1	G4G5		
Entodon brevisetus	A Moss	SU	G4?		
Ephemerum crassinervium var. texanum	A Moss	SU	G4T3?		
Ephemerum serratum	A Moss	SU	G4		
Fissidens exilis	Small Pocket Moss	SU	G3G4		
Forsstroemia producta	A Moss	S1	G5?		
Funaria americana	A Moss	SU	G3?		
Grimmia olneyi	A Moss	S?	G3G5		
Grimmia ovalis	A Moss	SU	G5?		
Grimmia plagiopodia	A Moss	SU	G4G5		
Gymnostomum calcareum	A Moss	SU	G5?		
Herzogiella striatella	A Moss	SU	G4G5		
Homaliadelphus sharpii	Sharp's Homaliadelphus	S1	G3?		
Hypnum cupressiforme var. filiforme	A Moss	S1	G5TNR		
Hypnum lindbergii var. americanum	A Moss	SU	G5TNR		
Hypnum pallescens	A Moss	S1	G5		
Hypnum pratense	A Moss	SU	G5		
Isopterygiopsis muelleriana	A Moss	S1	G5		
Jaffueliobryum raui	A Moss	SU	G4?		
Jaffueliobryum wrightii	A Moss	SU	G4G5		
Leskea polycarpa	A Moss	SU	G4G5		
Leucodon brachypus	A Moss	SU	G5		
Micromitrium megalosporum	A Moss	S1S2	G4		
Micromitrium synoicum	A Moss	SU	G4		
Micromitrium tenerum	A Moss	SU	G4G5		
Mnium hornum	A Moss	SU	G5		



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<b><u>MOSSES (Cont.)</u></b>					
Mnium thomsonii	A Moss	S?	G5		
Myurella sibirica	A Moss	S?	G4?		
Neckera bessi	A Moss	S1	G4G5		
Orthotrichum anomalum	A Moss	S?	G4G5		
Orthotrichum diaphanum	A Moss	S?	G5		
Orthotrichum elegans	A Moss	S1	G5		
Orthotrichum lescurii	A Moss	SU	GNR		
Physcomitrium collenchymatum	A Moss	S1	G2G4		
Physcomitrium hookeri	A Moss	SU	G2G4		
Plagiomnium medium	A Moss	SU	G5		
Plagiothecium denticulatum	A Moss	S1	G5		
Platylomella lescurii	A Moss	S?	G5		
Pleuridium acuminatum	A Moss	SU	G3G5		
Pleuridium sullivantii	A Moss	SU	G3G5		
Pohlia annotina	A Moss	SU	G4G5		
Polytrichum formosum var. densifolium	A Moss	SU	G5TNR		
Pseudotaxiphyllum distichaceum	A Moss	SU	G4G5		
Ptychomitrium serratum	A Moss	SU	G4?		
Ptychomitrium sinense	A Moss	S1	G4G5		
Pylaisia intricata	A Moss	SU	G4		
Pylaisiadelphina tenuirostris	A Moss	SU	G5?		
Pyramidula tetragona	A Moss	SU	G3G5		
Racomitrium aciculare	A Moss	SU	G5		
Rhabdoweisia crispata	A Moss	S1	G5		
Rhytidium rugosum	Golden Glade-moss	S1	G5		
Schistidium liliputanum	A Moss	SU	GNR		
Seligeria calcarea	A Moss	S?	G4?		
Seligeria donniana	A Moss	S1	G4G5		
Seligeria pusilla	A Moss	S1	G3G5		
Sematophyllum marylandicum	A Moss	S1	G5		
Sphagnum affine	Sphagnum	S1	G5		
Sphagnum angustifolium	Narrowleaf Peatmoss	S1	G5		
Sphagnum bartlettianum	Sphagnum	SU	G4G5		
Sphagnum capillifolium	Northern Peatmoss	S1	G5		
Sphagnum cuspidatum	Sphagnum	SU	G5		
Sphagnum fallax	Sphagnum	SU	G5		
Sphagnum fimbriatum var. fimbriatum	Sphagnum	S1	G5TNR		
Sphagnum henryense	Sphagnum	S1	G4?		
Sphagnum inundatum	Sphagnum	S1	G4		
Sphagnum magellanicum	Magellan's Peatmoss	SU	G5		
Sphagnum platyphyllum	Sphagnum	SU	G5		
Sphagnum recurvum	Sphagnum	S1	G5		
Sphagnum russowii	Sphagnum	SU	G5		
Sphagnum subtile	Sphagnum	SU	G5?Q		
Sphagnum trinitense	Sphagnum	S1	G4		
Syntrichia papillosa	A Moss	S?	G5		

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<b>MOSESSES (Cont.)</b>					
Syrrhopodon texanus	A Moss	S1	G5		
Thamnobryum alleghaniense	A Moss	S1	G5?		
Tortella fragilis	Fragmented Screw-moss	SU	G5		
Tortella tortuosa	Twisted Moss	SU	G5		
Trematodon longicollis	A Moss	S1	G5		
Trichostomum tenuirostre var. gemmiparum	A Moss	SU	G4TNR		
Ulotia hutchinsiae	Hutchins' Ulotia Moss	SU	G5		
Zygodon apiculatus	A Moss	S1	GU		
<b>Total Moss Records: 115</b>					
<b>FERNS AND FERN ALLIES</b>					
Asplenium bradleyi	Bradley's Spleenwort	SU	G4		
Asplenium montanum	Mountain Spleenwort	SH	G5		
Asplenium pinnatifidum	Lobed Spleenwort	SU	G4		
Asplenium trichomanes ssp. trichomanes	Maidenhair Spleenwort	SU	G5T5		
Azolla caroliniana	Eastern Mosquito Fern	S1S3	G5		
Botrychium biternatum	Few-lobed Grape Fern	S1	G5		
Cheilanthes alabamensis	Alabama Lip-fern	S1	G4G5		
Cheilanthes tomentosa	Woolly Lip-fern	S1	G5		
Cystopteris tenuis	A Bladderfern	S1	G5		
Dennstaedtia punctilobula	Hay-scented Fern	S2	G5		
Dryopteris carthusiana	Spinulose Shield Fern	S2	G5		
Dryopteris celsa	Log Fern	S1	G4		
Dryopteris cristata	Crested Fern	S1	G5		
Dryopteris goldiana	Goldie's Fern	S2	G4G5		
Dryopteris intermedia	Evergreen Woodfern	S1	G5		
Huperzia porophila	Fir Clubmoss	S2	G4		
Isoetes engelmannii var. engelmannii	Engelmann's Quillwort	S1?	G4TNR		
Lycopodium dendroideum	Round-branched Ground Pine	S1	G5		
Lycopodium tristachyum	Ground Cedar	S1	G5		
Matteuccia struthiopteris var. pennsylvanica	Ostrich Fern	S2	G5T5		
Ophioglossum crotalophoroides	Bulbous Adder's-tongue	SH	G5		
Ophioglossum petiolatum	Stalked Adder's-tongue	SX	G5		
Pellaea glabella var. missouriensis	Missouri Cliffbrake	S1S2	G5T1T2		
Pilularia americana	American Pillwort	SU	G5		
Pteridium aquilinum var. pseudocaudatum	Bracken	SU	G5T5		
Woodsia obtusa ssp. occidentalis	Blunt-lobe Woodsia	S1	G5T3T4		
Woodwardia areolata	Netted Chain Fern	S2	G5		
<b>Total Ferns and Fern Allies Records: 27</b>					

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<b>FLOWERING PLANTS</b>					
Acalypha deamii	Large Seeded Mercury	S1	G4?		
Aconitum uncinatum	Southern Monkshood	S1	G4		
Agalinis auriculata	Auriculate False Foxglove	S3	G3		
Agalinis heterophylla	Prairie False Foxglove	S1	G4G5		
Agalinis purpurea	Purple False Foxglove	S2	G5		
Agalinis viridis	Green False Foxglove	S1	G4?		
Agastache scrophulariifolia	Purple Giant-hyssop	S1	G4		
Agrimonia gryposepala	Tall Agrimony	SU	G5		
Allium burdickii	Wild Leek	S2	G4G5		
Alopecurus aequalis	Floating Foxtail Grass	S2	G5		
Amorpha nitens	Shining False Indigo	S1	G3?		
Amsonia ciliata var. filifolia	Ciliate Blue Star	S2S3	G5?T4?		
Anemone cylindrica	Thimbleweed	S2	G5		
Anemone quinquefolia var. quinquefolia	Wood Anemone	S1	G5T5		
Aralia nudicaulis	Wild Sarsaparilla	S2	G5		
Aristida adscensionis	Sixweeks Three-awn	SH	G5		
Aristida desmantha	Curly Three-awn	S2	G5		
Aristida lanosa	Woollyleaf Three-awn	S1	G5		
Aristida ramosissima	Slender Three-awn	SH	G5		
Aronia melanocarpa	Black Chokeberry	S1	G5		
Artemisia dracunculus	A Wormwood	SH	G5		
Asclepias exaltata	Poke Milkweed	S1	G5		
Asclepias meadii	Mead's Milkweed	S2	G2	E	T
Asclepias speciosa	Showy Milkweed	SA	G5		
Astragalus lotiflorus	Low Milk Vetch	S2	G5		
Astranthium ciliatum	Western Daisy	S2	G5T5		
Baptisia sphaerocarpa	Round-fruited Yellow Wild Indigo	SU	G4G5		
Bartonia paniculata ssp. paniculata	Screwstem	S1	G5T5		
Bartonia virginica	Yellow Bartonia	S1	G5		
Berberis canadensis	American Barberry	S1	G3		
Bergia texana	Bergia	S2	G5		
Berula erecta var. incisa	Cut-leaved Water-parsnip	S1	G4G5T4T5		
Bidens beckii	Water Marigold	SU	G4G5		
Bidens laevis	A Beggar's Tick	S1	G5		
Bolboschoenus maritimus ssp. paludosus	Bayonet Grass	S1	G5T5		
Boltonia decurrens	Decurrent False Aster	S1	G2	E	T
Bouteloua gracilis	Blue Grama	S1	G5		
Bouteloua hirsuta var. hirsuta	Hairy Grama	S2	G5T5		
Bromus latiglumis	A Brome	S3	G5		
Buchloe dactyloides	Buffalo Grass	SH	G4G5		
Calamagrostis porteri ssp. insperata	Oferhollow Reed Grass	S3	G4T3		
Calamagrostis stricta ssp. inexpansa	Northern Reedgrass	S2S3	G5T5		

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<b>FLOWERING PLANTS (Cont.)</b>					
<i>Calamovilfa longifolia</i> var. <i>longifolia</i>	Long-leaved Reed Grass	SH	G5T5		
<i>Callicarpa americana</i>	French Mulberry	S1	G5		
<i>Callirhoe bushii</i>	Bush's Poppy Mallow	S2	G3		
<i>Callirhoe triangulata</i>	Clustered Poppy Mallow	SH	G3		
<i>Callitriche palustris</i>	Vernal Water Starwort	SU	G5		
<i>Calopogon oklahomensis</i>	Grass Pink Orchid	SU	G3		
<i>Calopogon tuberosus</i>	Grass Pink Orchid	S2	G5		
<i>Caltha palustris</i>	Marsh Marigold	S1	G5		
<i>Campanula aparinoides</i> var. <i>aparinoides</i>	Marsh Bellflower	S1	G5TNR		
<i>Campanula rotundifolia</i>	Harebell	S1	G5		
<i>Carex abscondita</i>	A Sedge	S1	G4G5		
<i>Carex alata</i>	Broadwing Sedge	S2S3	G5		
<i>Carex albicans</i> var. <i>australis</i>	Bellow Beaked Sedge	S1	G5T5		
<i>Carex albolutescens</i>	Greenish-white Sedge	S1S2	G5		
<i>Carex aquatilis</i> var. <i>substricta</i>	A Sedge	S1	G5TNR		
<i>Carex atherodes</i>	Awned Sedge	S1	G5		
<i>Carex atlantica</i> ssp. <i>atlantica</i>	A Sedge	S1	G5T4		
<i>Carex bromoides</i> ssp. <i>bromoides</i>	A Sedge	S2	G5T5		
<i>Carex buxbaumii</i>	Brown Bog Sedge	S2	G5		
<i>Carex communis</i> var. <i>communis</i>	Fibrous-root Sedge	S2	G5T5		
<i>Carex comosa</i>	Bristly Sedge	S2	G5		
<i>Carex conoidea</i>	Field Sedge	S1	G5		
<i>Carex cumberlandensis</i>	A Sedge	S1	GNR		
<i>Carex debilis</i> var. <i>debilis</i>	White-edge Sedge	S1	G5T5		
<i>Carex decomposita</i>	Epiphytic Sedge	S3	G3G4		
<i>Carex echinodes</i>	A Sedge	SH	G5TNR		
<i>Carex fissa</i> var. <i>fissa</i>	A Sedge	S1	G4?T3T4		
<i>Carex flaccosperma</i>	A Sedge	S2	G5		
<i>Carex gigantea</i>	Giant Sedge	S1S2	G4		
<i>Carex gracillima</i>	Graceful Sedge	S1	G5		
<i>Carex inops</i> ssp. <i>heliophila</i>	Sun Sedge	SU	G5T5		
<i>Carex jooirii</i>	Cypress-swamp Sedge	SH	G4G5		
<i>Carex lacustris</i>	Lake-bank Sedge	S2	G5		
<i>Carex laxiflora</i> var. <i>laxiflora</i>	A Carex	S1	G5T5		
<i>Carex longii</i>	Greenish-white Sedge	S1	G5		
<i>Carex microdonta</i>	A Sedge	S1	G4		
<i>Carex molestiformis</i>	A Sedge	S2	G4		
<i>Carex oxylepis</i>	Sharp-scale Sedge	S2	G5?		
<i>Carex prasina</i>	Drooping Sedge	S1	G4		
<i>Carex reniformis</i>	Reniform Sedge	S1	G4?		
<i>Carex reznicekii</i>	A Sedge	S2?	G5		
<i>Carex sartwellii</i>	Sartwell's Sedge	S1	G4G5		
<i>Carex scabrata</i>	Rough Sedge	SH	G5		
<i>Carex socialis</i>	A Sedge	S2	G4		
<i>Carex spengelii</i>	Longbeak Sedge	S1	G5		
<i>Carex sterilis</i>	A Sedge	S2	G4		

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<b>FLOWERING PLANTS (Cont.)</b>					
Carex straminea	Straw Sedge	S1	G5		
Carex sychnocephala	A Sedge	S1	G4		
Carex tetanica	Rigid Sedge	S3	G4G5		
Carex tonsa var. rugosperma	Shaved Sedge	S1	G5T5		
Carex tonsa var. tonsa	Shaved Sedge	SH	G5T5		
Carex triangularis	Triangular Sedge	S2	G5		
Carex trichocarpa	Hairy-fruited Sedge	S1	G4		
Carex vesicaria var. monile	A Sedge	S2?	G5T4		
Carex willdenowii	Willdenow's Sedge	S1	G5		
Carex woodii	A Sedge	S1	G4		
Carya pallida	Sand Hickory	S2S3	G5		
Castanea pumila var. ozarkensis	Ozark Chinquapin	S2	G5T3		
Castanea pumila var. pumila	Chinquapin	SU	G5T5?		
Castilleja purpurea var. purpurea	Purple Paintbrush	SH	G5T4?		
Castilleja sessiliflora	Downy Painted Cup	S2	G5		
Cayaponia quinqueloba	A Gourd	S1	G4		
Centaurea americana	American basket flower	SH	G5		
Centrosema virginianum	Coastal Butterfly-pea	SH	G5		
Ceratophyllum echinatum	Coontail	S1?	G4?		
Chaetopappa asteroides var. asteroides	Common Leastdaisy	S2S3	G5T3T5		
Chasmanthium laxum ssp. laxum	Slender Spike Grass	S1	G5T5		
Chasmanthium laxum ssp. sessiliflorum	A Spike Grass	SX	G5T5		
Chelone obliqua	Rose Turtlehead	S2	G4		
Chenopodium berlandieri var. boscianum	Pitseed Goosefoot	SU	G5T3T5		
Chenopodium strictum var. glaucophyllum	A Goosefoot	SH	G5TU		
Cicuta maculata var. bolanderi	Common Water Hemlock	SU	G5T3T4		
Cirsium hillii	Hill's Thistle	SU	G3		
Cirsium undulatum	Wavy-leaved Thistle	S1	G5		
Cissus trifoliata	Marine Vine	S2	G5		
Clematis fremontii	Fremont's Leather Flower	S3	G5		
Clematis viorna	A Leatherflower	S1	G5		
Cleome serrulata	Rocky Mountain Bee Plant	SH	G5		
Coeloglossum viride var. virescens	Long-bracted Orchid	S1	G5T5		
Coelorachis cylindrica	Joint Grass	S1	G4G5		
Conyza canadensis var. pusilla	Fleabane	S1S2	G5T5		
Corispermum americanum	American Bugseed	SU	G5?		
Corispermum pallasii	A Bugseed	SH	G4?		
Corispermum villosum	Oriental Tick-seed	SU	G4?		
Corydalis aurea ssp. aurea	Golden Corydalis	SU	G5T5		
Corydalis micrantha ssp. australis	A Corydalis	S2	G5T5?		
Crataegus berberifolia var. berberifolia	Barberry-leaved Hawthorn	SU	GNR		
Crataegus collina var. lettermanii	Hillside Hawthorn	SU	GNR		
Crataegus collina var. sordida	Hillside Hawthorn	SU	GNR		

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<b>FLOWERING PLANTS (Cont.)</b>					
<i>Crataegus fecunda</i>	St. Clair Hawthorn	SU	G3?Q		
<i>Crataegus lanuginosa</i>	Woolly Hawthorn	SU	G3?Q		
<i>Crataegus macrosperma</i>	Eastern Hawthorn	SU	G5		
<i>Crataegus margarettae</i> var. <i>brownii</i>	Margaret's Hawthorn	SU	GNR		
<i>Crataegus marshallii</i>	Parsley Haw	S1	G5		
<i>Crataegus pruinosa</i> var. <i>magnifolia</i>	Frosty Hawthorn	SU	GNR		
<i>Crataegus schuettei</i>	Royal Hawthorn	SU	G5?		
<i>Crataegus spathulata</i>	A Hawthorn	S1	G5		
<i>Crataegus spes-aestatum</i>	Summers Hawthorn	SU	GNR		
<i>Crataegus succulenta</i> var. <i>succulenta</i>	Succulent Hawthorn	SU	G4G5TNR		
<i>Crataegus texana</i> var. <i>dasyphylla</i>	Texas Red Hawthorn	SU	GNR		
<i>Crataegus transmississippiensis</i>	A Hawthorn	SU	GNR		
<i>Crataegus viridis</i> var. <i>nitens</i>	Green Hawthorn	SU	GNR		
<i>Croton michauxii</i>	Narrowleaf Rushfoil	S1	G5		
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	Peruvian Dodder	SU	G5T4T5		
<i>Cyclachaena xanthiifolia</i>	A Marsh Elder	S1	G5		
<i>Cynoscium digitatum</i>	Finger Dog-shade	S2	G4G5		
<i>Cyperus compressus</i>	Coco Grass	SH	G5		
<i>Cyperus croceus</i>	Baldwin's Cyperus	S1	G5		
<i>Cyperus diandrus</i>	Umbrella Flatsedge	S1	G5		
<i>Cyperus flavicomus</i>	An Umbrella Sedge	S1	G5		
<i>Cyperus hystricinus</i>	Flatsedge	S1	G4		
<i>Cyperus plukenetii</i>	Plukenet's Cyperus	S1	G5		
<i>Cyperus retroflexus</i>	Umbrella Sedge	S1	G5		
<i>Cyperus retrofractus</i>	Teasel-like Cyperus	S1S2	G5		
<i>Cyperus retrorsus</i>	An umbrella sedge	SH	G5		
<i>Cyperus schweinitzii</i>	Schweinitz's Flatsedge	S3	G5		
<i>Cyperus setigerus</i>	Bristled Cyperus	S1	G3G5		
<i>Cypripedium candidum</i>	Small White Lady-slipper	S1	G4		
<i>Cypripedium reginae</i>	Showy Lady-slipper	S2S3	G4		
<i>Dalea enneandra</i>	Nine-anther Dalea	S2	G5		
<i>Dalea gattereri</i>	Gatterer Prairie-clover	S1	G3G4		
<i>Dalea multiflora</i>	Round-headed Prairie Clover	SH	G5		
<i>Dalea villosa</i> var. <i>villosa</i>	Silky Prairie Clover	SU	G5T5		
<i>Decodon verticillatus</i>	Swamp Loosestrife	S1	G5		
<i>Delphinium exaltatum</i>	Tall Larkspur	S2	G3		
<i>Descurainia pinnata</i> ssp. <i>pinnata</i>	Tansy Mustard	S2S3	G5T5		
<i>Desmodium ochroleucum</i>	Creamflower Tick	SH	G1G2		
	Trefoil				
<i>Desmodium strictum</i>	Pineland Tick Trefoil	S1	G4		
<i>Desmodium viridiflorum</i>	Velvety Tick Trefoil	S1	G5?		
<i>Diarrhena americana</i>	American Beakgrass	S1	G4G5		
<i>Dichondra carolinensis</i>	Pony-foot Grass	S1	G5		
<i>Dirca decipiens</i>	Leatherwood	SU	G1G2		

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<b>FLOWERING PLANTS (Cont.)</b>					
<i>Distichlis spicata</i> var. <i>spicata</i>	Seashore Salt Grass	S1	G5TNR		
<i>Doellingeria umbellata</i> var. <i>pubens</i>	Flat-topped White Aster	S1	G5T5		
<i>Echinacea angustifolia</i>	Narrow-leaved Coneflower	SH	G4		
<i>Echinochloa walteri</i>	A Barnyard Grass	S1	G5		
<i>Elatine triandra</i> var. <i>americana</i>	Waterwort	SH	G4		
<i>Elatine triandra</i> var. <i>triandra</i>	Waterwort	SH	G5		
<i>Eleocharis atropurpurea</i>	A Spike Rush	S1	G4G5		
<i>Eleocharis equisetoides</i>	Horsetail Spike Rush	SH	G4		
<i>Eleocharis lanceolata</i>	Lance-like Spike Rush	S2	G4G5		
<i>Eleocharis parvula</i>	Small Spike Rush	SU	G5		
<i>Elodea canadensis</i>	Broad Waterweed	SU	G5		
<i>Elymus churchii</i>	Church's Wildrye	S1	G2G3		
<i>Elymus glaucus</i>	Blue Wild Rye	SU	G5		
<i>Epifagus virginiana</i>	Beech Drops	S2	G5		
<i>Epilobium leptophyllum</i>	Willow Herb	S1	G5		
<i>Eragrostis glomerata</i>	A Love Grass	S1	G3G5		
<i>Eragrostis reptans</i>	Creeping Love Grass	SH	G5		
<i>Erianthus giganteus</i>	Plume Grass	S1	G5		
<i>Erianthus strictus</i>	Narrow Plumegrass	SH	G5		
<i>Eriogonum longifolium</i> var. <i>longifolium</i>	Umbrella Plant	S2	G4T4		
<i>Erysimum capitatum</i> var. <i>capitatum</i>	Western Wallflower	S3?	G5T5		
<i>Euonymus americanus</i>	Strawberry Bush	S2	G5		
<i>Eupatorium album</i>	White Thoroughwort	SU	G5		
<i>Eupatorium maculatum</i> var. <i>bruneri</i>	Spotted Joe-pye Weed	S1	G5T4T5Q		
<i>Eupatorium rotundifolium</i> var. <i>scabridum</i>	A Thoroughwort	S1?	G5T3T5		
<i>Eupatorium semiserratum</i>	A Thoroughwort	S1S2	G5		
<i>Euphorbia geyeri</i> var. <i>geyeri</i>	Geyer's Spurge	S1	G5T5		
<i>Euphorbia ouachitana</i>	A Spurge	SU	GNR		
<i>Eurybia furcata</i>	Forked Aster	S2	G3		
<i>Eurybia macrophylla</i>	Big-leaved Aster	S2	G5		
<i>Festuca sororia</i>	A Fescue	SH	G4		
<i>Filipendula rubra</i>	Queen of the Prairie	S2	G4G5		
<i>Fimbristylis littoralis</i> var. <i>littoralis</i>	A Fimbristylis	S1?	G3G5TNR		
<i>Fimbristylis perpusilla</i>	Harper's Fimbry	SH	G2		
<i>Floerkea proserpinacoides</i>	False Mermaid	SU	G5		
<i>Fragaria vesca</i>	Woodland Strawberry	S1	G5		
<i>Fraxinus biltmoreana</i>	Biltmore Ash	SU	G5		
<i>Fuirena simplex</i> var. <i>aristulata</i>	An Umbrella Grass	S2?	G5T4		
<i>Gaillardia aestivalis</i> var. <i>flavovirens</i>	A Blanket Flower	SH	G5T3T5		
<i>Galium asprellum</i>	Rough Bedstraw	SU	G5		
<i>Galium boreale</i>	Northern Bedstraw	S2	G5		
<i>Gaylussacia baccata</i>	Black Huckleberry	S1	G5		

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<b>FLOWERING PLANTS (Cont.)</b>					
<i>Gentiana andrewsii</i> var. <i>andrewsii</i>	Closed Gentian	S1	G5?T5?		
<i>Geocarpon minimum</i>	Geocarpon	S2	G2	E	T
<i>Geum fragarioides</i>	Barren Strawberry	S2	G5T5		
<i>Geum virginianum</i>	Pale Avens	S1	G5		
<i>Gillenia trifoliata</i>	Indian Physic	SH	G4G5		
<i>Glyceria acutiflora</i>	Sharp-scaled Manna Grass	S3	G5		
<i>Glyceria septentrionalis</i> var. <i>arkansana</i>	Eastern Manna Grass	SU	G5		
<i>Glycyrrhiza lepidota</i> var. <i>lepidota</i>	Wild Licorice	S1	G5TNRQ		
<i>Gratiola viscidula</i>	Hedge Hyssop	S1	G4G5		
<i>Grindelia ciliata</i>	A Goldenweed	S1	G4G5		
<i>Helianthium tenellum</i>	Dwarf Burhead	S1	G5?		
<i>Helenium virginicum</i>	Virginia Sneezeweed	S3	G3	E	T
<i>Helianthemum canadense</i>	A Rockrose	SU	G5		
<i>Helianthus angustifolius</i>	Swamp Sunflower	S2	G5		
<i>Helianthus decapetalus</i>	Thin-leaved Sunflower	SU	G5		
<i>Heliotropium curassavicum</i> var. <i>curassavicum</i>	Seaside Heliotrope	S1	G5T5		
<i>Heteranthera reniformis</i>	Mud Plantain	SU	G5		
<i>Heterotheca canescens</i>	Hoary Golden Aster	SH	G5?		
<i>Heuchera parviflora</i> var. <i>parviflora</i>	Little Leaved Alum Root	S1	G4T4		
<i>Hottonia inflata</i>	Featherfoil	S2	G4		
<i>Houstonia rosea</i>	Rose Bluets	SU	G5		
<i>Hydrocotyle ranunculoides</i>	Floating Pennywort	S1S2	G5		
<i>Hydrocotyle verticillata</i>	Water Pennywort	S1	G5		
<i>Hydrolea ovata</i>	Ovate Fiddleleaf	S2	G5		
<i>Hypericum adpressum</i>	Creeping St. John's-wort	S1	G3		
<i>Hypericum ascyron</i> ssp. <i>pyramidatum</i>	Great St. John's-wort	S1	G4		
<i>Hypericum lobocarpum</i>	A St. John's Wort	S1	G4Q		
<i>Hypericum majus</i>	Greater St. John's-wort	SH	G5		
<i>Ilex verticillata</i> var. <i>padifolia</i>	Winterberry	S3	G5TNR		
<i>Isolepis molesta</i>	Gulf Coast Bulrush	SH	G4?		
<i>Isotria medeoloides</i>	Small Whorled Pogonia	SH	G2	E	T
<i>Isotria verticillata</i>	Large Whorled Pogonia	S1S2	G5		
<i>Juncus alpinoarticulatus</i>	Richardson Rush	SH	G5		
<i>Juncus balticus</i> var. <i>littoralis</i>	Baltic Rush	S1	G5T5		
<i>Juncus brachyphyllus</i>	Small-headed Rush	S1	G5		
<i>Juncus bufonius</i> var. <i>bufonius</i>	Toad Rush	S1	G5T5		
<i>Juncus canadensis</i> var. <i>canadensis</i>	Canada Rush	S1	G5T5		
<i>Juncus debilis</i>	Weak Rush	S1	G5		
<i>Juncus filipendulus</i>	Ringseed Rush	SU	G5		
<i>Juncus nodosus</i>	Knotted Rush	SH	G5		
<i>Juncus validus</i>	A Rush	S1	G5		
<i>Justicia ovata</i> var. <i>lanceolata</i>	A Water Willow	S2	G5T4T5		
<i>Lactuca hirsuta</i>	Hairy Lettuce	SU	G5?		



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<b>FLOWERING PLANTS (Cont.)</b>					
Lactuca ludoviciana	Western Lettuce	SH	G4G5		
Lactuca tatarica ssp. pulchella	Blue Lettuce	S1	G5T5		
Lathyrus pusillus	A Wild Pea	SH	G5?		
Lathyrus venosus	Bushy Vetchling	SU	G5		
Leavenworthia torulosa	Necklace Goldcress	SU	G4		
Lechea racemulosa	Illinois Pinweed	SH	G5		
Leitneria floridana	Corkwood	S2	G3		
Lemna obscura	A Duckweed	SU	G5		
Lemna trisulca	Star Duckweed	S2	G5		
Lemna turionifera	A Duckweed	SH	G5		
Liatris punctata var. punctata	A Blazing Star	S3	G5T5		
Liatris scariosa var. nieuwlandii	A Blazing Star	S2	G5?T3T5		
Liatris spicata	Button Snakeroot	SX	G5		
Lilium philadelphicum var. andinum	Wood Lily	S1	G5T4T5		
Lilium superbum	Turk's Cap Lily	S1	G5		
Limnobium spongia ssp. spongia	American Frogbit	S2	G4		
Limnoscium pinnatum	Pinnate Dogshade	S1	G5?		
Limosella aquatica	Mudwort	SH	G5		
Lindera melissifolia	Pondberry	S1	G2G3	E	E
Linum floridanum var. floridanum	Florida Yellow Flax	SU	G5?T5?		
Liparis loeselii	Loesel's Twayblade	S2	G5		
Lipocarpha aristulata	Lipocarpha	SH	G5?		
Lipocarpha drummondii	A Lipocarpha	S1	G4G5		
Lippia nodiflora	Fog Fruit	SH	G5		
Listera australis	Southern Twayblade	S1	G4		
Lithospermum latifolium	American Gromwell	S2	G4		
Lobelia puberula	Downy Lobelia	SH	G5		
Lomatium foeniculaceum ssp. foeniculaceum	Hairy Parsley	S1S3	G5T5		
Ludwigia leptocarpa	Primrose Willow	S2	G5		
Ludwigia linearis	Narrow-leaved Primrose	SU	G5		
Ludwigia microcarpa	A False Loosestrife	S2	G5		
Ludwigia repens	A False Loosestrife	SU	G5		
Lycopus asper	Bugle Weed	SH	G5		
Lycopus uniflorus	Northern Bugleweed	S2?	G5		
Lygodesmia juncea	Skeleton Plant	S3	G5		
Lyonia mariana	Stagger Bush	SH	G5		
Lysimachia terrestris	Swamp Candle	S1	G5		
Lysimachia thyrsiflora	Tufted Loosestrife	S1	G5		
Maianthemum stellatum	Starry False Solomon's Seal	SU	G5		
Malus angustifolia	Narrow-leaved Wild Crab	S2	G5?		
Malvastrum angustum	Yellow False Mallow	S3	G3G5		
Marshallia caespitosa var. caespitosa	Barbara's Buttons	S3	G4T4		
Marshallia caespitosa var. signata	Barbara's Buttons	S1	G4T4		

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<b>FLOWERING PLANTS (Cont.)</b>					
Mecardonia acuminata	Water Hyssop	S1	G5		
Medeola virginiana	Indian Cucumber-root	SH	G5		
Melica mutica	Two-flowered Melic Grass	S1	G5		
Melothria pendula	Creeping Cucumber	S3	G5?		
Menyanthes trifoliata	Bogbean	S1	G5		
Mimulus glabratus var. jamesii	Roundleaf Monkey Flower	SH	G5T5		
Minuartia muscorum	Dixie Stitchwort	S1	GNR		
Mirabilis linearis var. linearis	Narrow-leaved Four- o'clock	SU	GNR		
Mitreola petiolata	Miterwort	S1	G5		
Moehringia lateriflora	Grove Sandwort	S2S3	G5		
Monarda clinopodia	A Horsemint	S1	G5		
Monarda punctata var. arkansana	Arkansas Bee Balm	SA	G5TNR		
Monarda punctata var. occidentalis	Dotted Monarda	SA	G5T4T5		
Monarda punctata var. villicaulis	Horsemint	S3	G5T5?		
Muhlenbergia asperifolia	Scratchgrass	S1	G5		
Muhlenbergia cuspidata	Plains Muhly	SU	G4		
Muhlenbergia glabrifloris	Inland Muhly	SU	G4?		
Najas flexilis	A Naiad	SH	G5		
Najas gracillima	Thread-like Naiad	S2	G5?		
Nemastylis geminiflora	Prairie Iris	S2	G4		
Neviusia alabamensis	Snow Wreath	SH	G2		
Nothocalais cuspidata	Prairie Dandelion	S2	G5		
Nyssa biflora	Swamp Black Gum	SH	G5		
Obolaria virginica	Virginia Pennywort	S2	G5		
Oenothera clelandii	Evening Primrose	S2	G3G5		
Oenothera fruticosa ssp. fruticosa	Shrubby Sundrops	S1	G5T5		
Oenothera fruticosa ssp. glauca	Shrubby Sundrops	SH	G5T5		
Oenothera glaucifolia	Stenosiphon	S2	G5		
Oenothera grandis	Cut-leaved Evening Primrose	SU	G5?		
Oenothera nutans	Nodding Evening Primrose	S1S2	G4		
Oenothera parviflora	Northern Evening Primrose	SU	G4?		
Oenothera perennis	Small Sundrops	S1	G5		
Oenothera rhombipetala	An Evening Primrose	SH	G4G5		
Oenothera suffrutescens	Scarlet Gaura	S1	GNR		
Oenothera triloba	Stemless Evening Primrose	S2	G4		
Oldenlandia boscii	A Bluet	S1	G5		
Oldenlandia uniflora	Clustered Bluets	S1	G5		
Opuntia macrorhiza var. macrorhiza	Low Prickly Pear	S2	G5T5		
Opuntia polyacantha var. polyacantha	Starvation Cactus	SX	G5T5		
Orobanche ludoviciana	A Broomrape	S1	G5		
Orobanche riparia	A Broomrape	S1	G4?		

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<b>FLOWERING PLANTS (Cont.)</b>					
<i>Oryzopsis racemosa</i>	Black-seeded Mountain Rice	S1	G5		
<i>Oxytropis lambertii</i> var. <i>lambertii</i>	Locoweed	S2	G5TNR		
<i>Packera tomentosa</i>	Hairy Groundsel	SH	G4G5		
<i>Panicum dichotomum</i> var. <i>mattamuskeetense</i>	A Panic Grass	SH	G4T4?		
<i>Panicum dichotomum</i> var. <i>nitidum</i>	A Panic Grass	S1	G5TNR		
<i>Panicum dichotomum</i> var. <i>yadkinense</i>	A Panic Grass	SH	G5T4Q		
<i>Panicum leibergii</i>	A Panic Grass	SU	G5		
<i>Panicum longifolium</i>	Panicgrass	SU	G5		
<i>Panicum portoricense</i>	A Panic Grass	S1?	G5TNR		
<i>Panicum verrucosum</i>	Warty Panicgrass	S1	G4		
<i>Paronychia virginica</i>	Virginia Whitlow Wort	S1	G4		
<i>Paspalum bifidum</i>	Pitchfork Paspalum	S1	G5		
<i>Paspalum dissectum</i>	Mudbank Paspalum	SH	G4?		
<i>Paspalum setaceum</i> var. <i>setaceum</i>	Slender Paspalum	S1	G5T5		
<i>Pediomelum argophyllum</i>	Silvery Psoralea	S2	G5		
<i>Peltandra virginica</i> ssp. <i>virginica</i>	Arrow Arum	S2	G5T5		
<i>Penstemon cobaea</i>	A Beard-tongue	S1	G4		
<i>Penstemon grandiflorus</i>	Large Beard-tongue	S1	G5?		
<i>Penstemon tenuis</i>	Gulf Coast Beard-tongue	SU	G4		
<i>Perideridia americana</i>	Eastern Eulophus	SU	G4		
<i>Persicaria amphibia</i> var. <i>stipulacea</i>	Water Smartweed	S1	G5T5		
<i>Persicaria arifolia</i>	Halberd-leaved Tear Thumb	S1	G5		
<i>Persicaria bicornis</i>	Pink Smartweed	SU	GNR		
<i>Persicaria glabra</i>	Dense-flower Smartweed	S1S2	G5		
<i>Persicaria robustior</i>	Dotted Smartweed	SU	G4G5		
<i>Phacelia covillei</i>	Coville's Phacelia	S1	G3		
<i>Philadelphus pubescens</i> var. <i>verrucosus</i>	Mock Orange	S1	G5?TU		
<i>Phlox amplifolia</i>	Large-leaved Phlox	S3?	G3G5		
<i>Phlox bifida</i>	Bifid Phlox	S1	G5?		
<i>Phlox maculata</i> ssp. <i>pyramidalis</i>	Wild Sweet William	S2	G5T4T5		
<i>Phyllanthus polygonoides</i>	Knotweed Leaf-flower	S1	G5		
<i>Physalis grisea</i>	Strawberry-tomato	SU	G5?		
<i>Physalis missouriensis</i>	Missouri Groundcherry	SU	G5?		
<i>Physaria filiformis</i>	Missouri Bladder-pod	S3	G3	E	T
<i>Physostegia intermedia</i>	A False Dragonhead	S1	G5		
<i>Plantago heterophylla</i>	Slender Plantain	SU	G5		
<i>Plantago patagonica</i>	Woolly Plantain	S2	G5		
<i>Platanthera ciliaris</i>	Yellow-fringed Orchid	S1	G5		
<i>Platanthera clavellata</i>	Green Wood Orchid	S2	G5		
<i>Platanthera flava</i> var. <i>flava</i>	Pale Green Orchid	S2	G4?T4?Q		
<i>Platanthera flava</i> var. <i>herbiola</i>	Northern Rein Orchid	S2	G4?T4Q		
<i>Platanthera leucophaea</i>	Eastern Prairie Fringed Orchid	S1	G2G3	E	T

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<b>FLOWERING PLANTS (Cont.)</b>					
Platanthera praeclara	Western Prairie Fringed Orchid	S1	G3	E	T
Platanthera psycodes	Small Purple-fringed Orchid	SX	G5		
Pluchea foetida var. foetida	March Fleabane	SH	G5T5		
Poa interior	Inland Bluegrass	S1	G5		
Pogonia ophioglossoides	Snake-mouth Orchid	S1	G5		
Polygonum americanum	Jointweed	S2	GNR		
Polymnia laevigata	Smooth Leaf-cup	SX	G3		
Populus grandidentata	Big-toothed Aspen	S1	G5		
Populus tremuloides	Quaking Aspen	S2	G5		
Portulaca pilosa	Kiss Me Quick	SU	G5		
Potamogeton epihydrus	Nuttall Pondweed	SH	G5		
Potamogeton pulcher	Spotted Pondweed	S2S3	G5		
Potamogeton pusillus var. pusillus	Slender Pondweed	S1	G5T5		
Potentilla supina ssp. paradoxa	Bushy Cinquefoil	SH	G5		
Prenanthes racemosa	Rattlesnake Root	SH	G5		
Primula fassettii	Amethyst Shooting Star	S2	GNR		
Primula frenchii	French's Shooting Star	S1	GNR		
Proserpinaca palustris var. palustris	Mermaid Weed	SU	G5T5		
Pseudognaphalium helleri	Heller's Cudweed	SU	G4G5		
Pseudognaphalium micradenium	Rabbit Tobacco	SU	G4G5T3?		
Ptilimnium capillaceum	Mock Bishop's Weed	SH	G5		
Pycnanthemum muticum	Blunt Mountain Mint	S2	G5		
Pycnanthemum torrei	Torrey Mountain Mint	SH	G2		
Quercus ellipsoidalis	Northern Pin Oak	S1	G5		
Quercus margarettiae	Sand Post Oak	SRF	G5		
Quercus nigra	Water Oak	S2	G5		
Quercus prinoides	Dwarf Chinquapin Oak	S3?	G5		
Quercus texana	Nuttall's Oak	S2	G4G5		
Ranunculus cymbalaria	Seaside Crowfoot	SH	G5		
Rhynchosia difformis	Double-formed Snoutbean	S1	G5?		
Rhynchospora harveyi	Harvey's Beak-rush	S1	G4		
Rhynchospora macrostachya var. macrostachya	Horned Rush	S1	G4T4Q		
Rhynchospora scirpoides	Longbeak Beaksedge	SU	G4		
Ribes americanum	Gooseberry	S1	G5		
Rorippa aquatica	Lake Cress	S2	G4?		
Rosa blanda	Smooth Rose	S1	G5		
Rubus plicatifolius	A Blackberry	SU	G5		
Rubus rosa	Rose Blackberry	SU	G5		
Rubus satis	Ithaca Blackberry	SU	G4G5Q		
Rudbeckia amplexicaulis	Clasping Leaved Coneflower	S?	G5		
Rudbeckia grandiflora var. grandiflora	Rough Coneflower	S1	G5T4?		
Ruppia maritima	Ditch Grass	S1	G5		

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<b>FLOWERING PLANTS (Cont.)</b>					
<i>Sabatia brachiata</i>	Marsh Pink	S1	G5?		
<i>Sacciolepis striata</i>	American Cupscale	S1	G5		
<i>Sagina procumbens</i>	Matted Pearlwort	SU	G5		
<i>Sagittaria ambigua</i>	Kansas Arrowhead	S1	G2?		
<i>Sagittaria platyphylla</i>	Ovate-leaved Arrowhead	S1	G5		
<i>Salix discolor</i>	Pussy Willow	S1	G5		
<i>Salix famelica</i>	Diamond Willow	SU	G5T		
			NR		
<i>Salix petiolaris</i>	Meadow Willow	S1	G5		
<i>Sambucus pubens</i>	Red-berried Elderberry	S1	G4G5		
			Q		
<i>Sanicula smallii</i>	Black Snakeroot	SH	G5		
<i>Sapindus saponaria</i> var. <i>drummondii</i>	Soapberry	S2	G5T5		
<i>Schoenoplectus americanus</i>	Olney's Bulrush	SH	G5		
<i>Schoenoplectus californicus</i>	Giant Bulrush	S1	G5		
<i>Schoenoplectus deltarum</i>	Delta Bulrush	SH	G3G4		
<i>Schoenoplectus etuberculatus</i>	Canby's Bulrush	S1	G3G4		
<i>Schoenoplectus hallii</i>	Hall's Bulrush	S2	G2G3		
<i>Schoenoplectus heterochaetus</i>	Giant Bulrush	SU	G5		
<i>Schoenoplectus purshianus</i>	Weakstalk Bulrush	S1	G4G5		
<i>Schoenoplectus saximontanus</i>	A Bulrush	S1	G5		
<i>Schoenoplectus subterminalis</i>	Swaying Rush	S1	G4G5		
<i>Schoenoplectus torreyi</i>	Torrey's Bulrush	SH	G5?		
<i>Scirpus divaricatus</i>	A Bulrush	SH	G5		
<i>Scirpus pallidus</i>	Pale Bulrush	S2	G5		
<i>Scirpus pedicellatus</i>	A Bulrush	SU	G4		
<i>Scleria reticularis</i> var. <i>pubescens</i>	Muhlenberg's Nut-rush	S1	G5		
<i>Scrophularia lanceolata</i>	Early Figwort	SH	G5		
<i>Scutellaria elliptica</i> var. <i>hirsuta</i>	Hairy Skullcap	SH	G5T5		
<i>Scutellaria galericulata</i>	Marsh Skullcap	S1	G5		
<i>Sida elliotii</i>	Elliott Sida	S1	G4G5		
<i>Sisyrinchium atlanticum</i>	Eastern Blue-eyed Grass	S2	G5		
<i>Smilax illinoensis</i>	Carrion Flower	S2S3	G4?		
<i>Solanum elaeagnifolium</i>	White Horse Nettle	SU	G4G5		
<i>Solidago riddellii</i>	Riddell's Goldenrod	S3	G5		
<i>Solidago rigida</i> ssp. <i>humilis</i>	Stiff Goldenrod	SU	G5T5		
<i>Spermolepis diffusa</i>	Rough-fruit Spermolepis	S1	GNR		
<i>Sphenopholis pensylvanica</i>	Swamp Oats	SH	G4		
<i>Spiraea alba</i> var. <i>alba</i>	Meadow-sweet	S1	G5T5		
<i>Spiraea tomentosa</i>	Hardhack	S1	G5		
<i>Sporobolus airoides</i>	Alkali Sacaton	SH	G5		
<i>Stachys aspera</i>	Hedge Nettle	SH	G4?		
<i>Steinchisma hians</i>	Gaping Panic Grass	S3	G5		
<i>Stylisma pickeringii</i> var. <i>pattersonii</i>	A Stylisma	S1	G4T4		
<i>Styrax grandifolius</i>	Bigleaf Snowbell	SU	G5		
<i>Sullivantia sullivantii</i>	Sullivantia	S2	G4		
<i>Symphoricarpos occidentalis</i>	Wolfberry	S1	G5		

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<b>FLOWERING PLANTS (Cont.)</b>					
Symphyotrichum ciliatum	Rayless Alkali Aster	SH	G5		
Symphyotrichum patens var. gracile	Spreading Aster	SU	G5T4T5		
Symphyotrichum racemosum var. subdumosum	Small White Aster	S2	G4G5T3T5Q		
Symphyotrichum subulatum var. ligulatum	Saltmarsh Aster	S2	G5		
Thalia dealbata	Water Canna	S2	G4		
Thelesperma filifolium	Thelesperma	S2	G4G5		
Tilia americana var. heterophylla	White Basswood	SU	G5T5		
Tipularia discolor	Crane-fly Orchid	S2	G4G5		
Torreyochloa pallida var. pallida	Pale Manna Grass	S1	G5T5?		
Tradescantia ozarkana	Ozark Spiderwort	S2	G3		
Tragia cordata	Heart-leaved Noseburn	S2	G4		
Trautvetteria caroliniensis	False Bugbane	S2	G5		
Trepocarpus aethusae	Trepocarpus	S1	G4G5		
Triadenum tubulosum	Marsh St. John's Wort	S1	G4?		
Trichostema setaceum	Blue Curls	S1	G5		
Tridens flavus var. chapmanii	A Grass	S2	G5T3		
Tridens muticus var. elongatus	Slim Tridens	SH	G5T4?		
Trifolium carolinianum	Carolina Clover	S1	G5		
Trifolium stoloniferum	Running Buffalo Clover	S1	G3	E	E
Trillium nivale	Snow Trillium	S3?	G4		
Trillium pusillum var. ozarkanum	Ozark Wake Robin	S2	G3T3		
Triodanis holzingeri	A Venus' Looking Glass	SH	G4		
Triodanis lamprosperma	A Venus' Looking Glass	S2	G5?		
Turritis glabra	Tower Mustard	SH	G5		
Typha domingensis	Southern Cattail	S1	G4G5		
Ulmus crassifolia	Cedar Elm	S1	G5		
Ulmus thomasii	Rock Elm	S2	G5		
Urtica chamaedryoides	Weak Nettle	S1	G4G5		
Utricularia minor	Lesser Bladderwort	S1	G5		
Utricularia subulata	Slender Bladderwort	S1	G5		
Valerianella ozarkana	Ozark Corn Salad	S2	G3		
Veronica americana	American Brooklime	SH	G5		
Viburnum bracteatum	Ozark Arrow Wood	S1S2	G1G2		
Viburnum dentatum	Southern Arrow-wood	S1	G5		
Viburnum lentago	Nannyberry	S1	G5		
Viburnum recognitum	Northern Arrow-wood	S1	G4G5		
Vicia ludoviciana ssp. leavenworthii	Louisiana Vetch	SH	G5T5		
Vicia minutiflora	Pygmy-flowered Vetch	SH	G5		
Viola affinis	Sand Violet	S1	G5		
Viola pallens	Smooth White Violet	S2	G5T5		
Vitis rotundifolia var. rotundifolia	Muscadine	S1	G5T5		
Wolffia borealis	Dotted Watermeal	SU	G5		
Wolffia columbiana	Columbia Water-meal	SU	G5		
Wolffiella gladiata	Wolffiella	S1	G5		

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<b>FLOWERING PLANTS (Cont.)</b>					
Xyris jupicai	Yellow-eyed-grass	S1	G5		
Xyris torta	Yellow-eyed Grass	S1	G5		
Yucca arkansana	Arkansas Yucca	S2	G5		
Yucca glauca	Small Soapweed Yucca	S2	G5		
Zannichellia palustris var. major	Horned Pondweed	S3?	G5TNR		
Zigadenus elegans ssp. glaucus	White Camas	S2	G5T4T5		
Zigadenus nuttallii	Death Camas	S1	G5		
Zizania palustris var. interior	Interior Wild Rice	SH	G4G5T4T5		
<b>Total Flowering Plant Records: 524</b>					
<b>FLATWORMS</b>					
Macrocotyla glandulosa	Pink Planarian	S1	G2G3		
Macrocotyla lewisi	Lewis' Cave Planarian	S1	G1		
Sphalloplana evaginata	Perryville Cave Planarian	S1	G1G2		
Sphalloplana hubrichti	Hubricht's Cave Planarian	S1	G2G4		
<b>Total Flatworm Records: 4</b>					
<b>MOLLUSKS</b>					
Alasmidonta marginata	Elktoe	S2	G4		
Alasmidonta viridis	Slippershell Mussel	S1	G4G5		
Amnicola stygius	Stygian Amnicola	S1	G1		
Anodonta suborbiculata	Flat Floater	S2	G5		
Anodontoides ferussacianus	Cylindrical Papershell	S1	G5		
Antrobia culveri	Tumbling Creek Cavesnail	S1	G1	E	E
Arcidens confragosus	Rock Pocketbook	S3	G4		
Campeloma crassulum	Ponderous Campeloma	SU	G5		
Cumberlandia monodonta	Spectaclecase	S3	G3		E
Cyprogenia aberti	Western Fanshell	S2	G2G3G4		
Discus nigrimontanus	Black Mountain Disc	S3	G4		
Elliptio crassidens	Elephantear	S1	G5	E	
Epioblasma florentina curtisii	Curtis Pearlymussel	S1	G1T1	E	E
Epioblasma triquetra	Snuffbox	S1	G3	E	E
Fontigens aldrichi	Hoosier Springsnail	S4	G4		
Fontigens antroecetes	Missouri Cavesnail	S2	G2		
Fontigens proserpina	Proserpine Cavesnail	S1	G1		
Fusconaia ebena	Ebonyshell	S1	G4G5	E	
Gastrocopta cristata	Crested Snaggletooth	S1	G5		
Gastrocopta pellucida	Slim Snaggletooth	S1	G5		
Hendersonia occulta	Cherrystone Snail	S3	G4		
Lampsilis abrupta	Pink Mucket	S2	G2	E	E
Lampsilis brittsi	Northern Brokenray	S3	G4T3		
Lampsilis higginsii	Higgins Eye	S1	G1G2	E	E
Lampsilis rafinesqueana	Neosho Mucket	S2	G2		E
Leptodea leptodon	Scaleshell	S1	G1G2	E	E
Leptoxis arkansensis	Arkansas Mudalia	S1	G1		
Ligumia recta	Black Sandshell	S2	G4G5		
Lioplax sulculosa	Furrowed Lioplax	S1	G5		

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<b>MOLLUSKS (Cont.)</b>					
Marstonia ozarkensis	Ozark Pyrg	SH	G1		
Marstonia scalariformis	Moss Pyrg	S1	G1		
Mesodon mitchellianus	Sealed Goblet	S1	G4		
Micromenetus sampsoni	Sampson Sprite	S2	G2G3Q		
Millerelix deltoidea	Oklahoma Liptooh	SU	G2		
Neohelix divesta	Ozark Whitelip	S3	G3G4		
Obovaria jacksoniana	Southern Hickorynut	S1	G2		
Obovaria olivaria	Hickorynut	S3	G4		
Patera perigrapta	Engraved Bladetooth	S2	G5		
Plectomerus dombeyanus	Bankclimber	S3	G5		
Plethobasus cyphus	Sheepnose	S2	G3	E	E
Pleurocera alveare	Rugged Hornsnail	S1S3	G3		
Potamilus capax	Fat Pocketbook	S1	G2	E	E
Ptychobranhus occidentalis	Ouachita Kidneyshell	S3	G3G4		
Quadrula cylindrica cylindrica	Rabbitsfoot	S1	G3G4T3		T
Quadrula fragosa	Winged Mapleleaf	S1	G1	E	E
Quadrula nodulata	Wartyback	S3	G4		
Simpsonaias ambigua	Salamander Mussel	S1	G3		
Somatogyrus depressus	Sandbar Pebblesnail	S2	G2		
Somatogyrus rosewateri	Elk Pebblesnail	S1	G1		
Stagnicola elodes	Marsh Pondsnaill	S2	G5		
Stenotrema stenotrema	Inland Slitmouth	S3	G5		
Strobilops affinis	Eightfold Pinecone	S2	G4		
Toxolasma lividum	Purple Lilliput	S1	G3Q		
Toxolasma texasense	Texas Lilliput	S3	G4		
Triodopsis cragini	Post Oak Threetooth	SH	G4		
Ventridens demissus	Perforate Dome	SU	G5		
Vertigo oscariana	Capital Vertigo	S1	G4		
Zonitoides limatulus	Dull Gloss	S1	G4G5		
<b>Total Mollusk Records: 58</b>					
<b>ARACHNIDS</b>					
Apochthonius mysterius	Mystery Cave Pseudoscorpion	S1	G1G2		
Apochthonius typhlus	Stone County Cave Pseudoscorpion	S1	G1G2		
Hesperoernes occidentalis	Guano Pseudoscorpion	S3	G5		
Mundochthonius cavernicolus	Cavernicolous Pseudoscorpion	SU	G1G2		
Phanetta subterranea	Subterranean Cave Spider	S1	G5		
Porrhomma cavernicola	Cavernicolous Porrhomma Spider	S2	G5		
<b>Total Arachnid Records: 6</b>					
<b>CRUSTACEANS</b>					
Allocrangonyx hubrichti	Hubricht's Long-tailed Amphipod	S3	G2G3		
Bactrurus brachycaudus	Short-tailed Groundwater Amphipod	S4	G4		



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<b>CRUSTACEANS (Cont.)</b>					
Batrurus hubrichti	Sword-tail Cave Amphipod	S1	G4		
Batrurus pseudomucronatus	False Sword-tailed Cave Amphipod	S2	G2G3		
Brackenridgia ashleyi	Ashley's Isopod	S2	G1G3		
Caecidotea antricola	A Cave Obligate Isopod	S4	G5		
Caecidotea dimorpha	An Isopod	S1S3	G2G3		
Caecidotea fustis	Fustis Cave Isopod	S2	G2G3		
Caecidotea salemensis	Salem Cave Isopod	S2	G4		
Caecidotea serrata	Serrated Cave Isopod	S1	G1G2		
Caecidotea stiladactyla	Slender-fingered Cave Isopod	S1	G3G4		
Caecidotea stygia	Stygian Cave Isopod	S1	G5		
Cambarellus puer	Cajun Dwarf Crayfish	S3?	G5		
Cambarellus shufeldtii	Shufeldt's Dwarf Crayfish	S3?	G5		
Cambarus aculabrum	Cave Crayfish	SP	G1		E
Cambarus hubrichti	Salem Cave Crayfish	S3	G4		
Cambarus ludovicianus	Painted Devil Crayfish	SU	G5		
Cambarus maculatus	Freckled Crayfish	S3	G4		
Cambarus polychromatus	Paintedhand Mudbug	S1S2	G5		
Cambarus setosus	Bristly Cave Crayfish	S3	G3		
Diacyclops yeatmani	Yeatman's Groundwater Copepod	S1S3	G2G3		
Fallicambarus fodiens	Digger Crayfish	S2S3	G5		
Faxonella clypeata	Shield Crayfish	S2S3	G5		
Lirceus megapodus	An Isopod	SU	GNR		
Macrobrachium ohione	Ohio Shrimp	S1	G4		
Orconectes eupunctus	Coldwater Crayfish	S2	G2		
Orconectes harrisonii	Belted Crayfish	S3	G3		
Orconectes lancifer	Shrimp Crayfish	S1S2	G5		
Orconectes marchandi	Mammoth Spring Crayfish	S1S2	G2		
Orconectes meeki meeki	Meek's Crayfish	S1	G4T4		
Orconectes peruncus	Big Creek Crayfish	S2	G2		
Orconectes quadruncus	St. Francis River Crayfish	S2	G2		
Orconectes stygocaneyi	Caney Mountain Cave Crayfish	S1	G1		
Orconectes williamsi	Williams' Crayfish	S2	G3		
Procambarus viaeviridis	Vernal Crayfish	S3?	G5		
Stygobromus barri	Barr's Groundwater Amphipod	S1S3	G2G3		
Stygobromus clantoni	Clanton's Groundwater Amphipod	S1S3	G4		
Stygobromus heteropodus	Pickle Springs Amphipod	SX	G1G2		
Stygobromus onondagaensis	Onondaga Cave Amphipod	S3?	G3		
Stygobromus ozarkensis	Ozark Cave Amphipod	S3?	G4		
Stygobromus subtilis	Subtle Groundwater Amphipod	S1S3	G2		
Triops longicaudatus	Longtail Tadpole Shrimp	SU	G5		
<b>Total Crustacean Records: 42</b>					

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<b>MILLIPEDES</b>					
Causeyella dendropus	Causeyella Cave Millipede	S2	G1G3		
Chaetaspis aleyorum	Aleys' Cave Millipede	S1	G1		
Tingupa pallida	Tingupa Cave Millipede	S4	G4		
Zosteractis interminata	Zosteractis Cave Millipede	SU	G2G3		
<b>Total Millipede Records: 4</b>					
<b>INSECTS</b>					
Acroneuria ozarkensis	Ozark Stone	S2	G2		
Agapetus artesus	Artesian Agapetus Caddisfly	S3	G3		
Aleochara speculicollis	A Staphylinid Beetle	SU	GNR		
Allocapnia pygmaea	Pygmy Snowfly	S3	G5		
Alloperla hamata	Barbed Sallfly	S3	G4		
Alloperla leonarda	Truncate Sallfly	S3	G4		
Amblytropidia mysteca	A Glade Grasshopper	SU	G5		
Amphiagrion saucium	Eastern Red Damsel	S2	G5		
Andrena beameri	An Andrenid Bee	S3	GNR		
Argia alberta	Paiute Dancer	S1	G4		
Arigomphus maxwelli	Bayou Clubtail	SU	G5		
Arrhopalites clarus	Clarus Cave Springtail	S3	G4		
Attaneuria ruralis	Giant Stone	S3	G4		
Baetisca obesa	A Mayfly	S3	G5		
Beameria venosa	A Concealed-tymbal Cicada	S3	GNR		
Biblopectus chickasaw	A Staphylinid Beetle	SU	GNR		
Calephelis borealis	Northern Metalmark	S1	G3G4		
Calephelis muticum	Swamp Metalmark	S3	G3		
Catocala marmorata	Marbled Underwing Moth	S3	G3G4		
Catocala pretiosa texarkana	Precious Underwing Moth	S3?	G4T4		
Ceratopsyche piatrix	A Net-spinning Caddisfly	S4	G4		
Chalybion zimmermanni zimmermanni	A Blue Mud Dauber	SU	GNRTNR		
Cicindela celeripes	Swift Tiger Beetle	S1	G2G4		
Cicindela circumpecta johnsonii	Saline Spring Tiger Beetle	S1	G5T5		
Cicindela pruinina	Loamy-ground Tiger Beetle	S1	G3G4		
Conocephalus saltans	Prairie Meadow Katydid	S3	GNR		
Deinopsis virginiana	A Staphylinid Beetle	SU	GNR		
Derops divalis	A Staphylinid Beetle	S3	GNR		
Euphyes dukesi	Duke's Skipper	S1	G3		
Formica creightoni	Creighton's Slavemaking Ant	S3	GNR		
Formica fossiceps	Haystack Thatching Ant	S1	GNR		
Formica querquetulana	Oak-grove Ant	S1	GNR		
Gennadota canadensis	A Staphylinid Beetle	SU	GNR		
Glyphopsyche missouri	Missouri Glyphopsyche Caddisfly	S1	G1		
Gomphus fraternus	Midland Clubtail	SU	G5		
Gomphus ventricosus	Skillet Clubtail	SU	G3		

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<b>INSECTS (Cont.)</b>					
Grylotalpa major	Prairie Mole Cricket	S3	G3		
Hesperia ottoe	Ottoe Skipper	S1	G3G4		
Hesperus stehri	A Staphylinid Beetle	SU	GNR		
Hydroperla fugitans	Austin Springfly	S3	G3		
Inscudderia taxodii	Bald Cypress Katydid	S1	GNR		
Isoperla burksi	Banded Stripetail	S3	G4		
Isoperla longiseta	Plains Stripetail	SX	G5		
Lasia purpurata	Purple Small-headed Fly	SU	GNR		
Leptysma marginicollis	Cattail Toothpick	S2S3	G5		
	Grasshopper				
Leucotrichia pictipes	A Micro Caddisfly	S3	G5		
Libellula auripennis	Golden-winged Skimmer	SU	G5		
Lordithon niger	A Staphylinid Beetle	S3	GU		
Lytosis permagnaria	Geometrid Moth	SU	G3G4		
Melanoplus fasciatus	Huckleberry Grasshopper	S3	G5		
Melanoplus impudicus	Immodest Grasshopper	S3	G4G5		
Melanoplus packardii	Packard's Grasshopper	S2	G5		
Melanoplus punctulatus griseus	Grizzly Grasshopper	SU	G4T4		
Melanoplus viridipes viridipes	Green-legged Grasshopper	S3	G4		
Melissodes intorta	A Callirhoe Bee	S1	GNR		
Mermiria picta	Mermiria Grasshopper	S3	G5		
Merope tuber	A Meropid Scorpionfly	S3	G3G5		
Metaleptea brevicornis	Short-horned Grasshopper	S4	G5		
Nehalennia gracilis	Sphagnum Sprite	S1?	G5		
Nehalennia irene	Sedge Sprite	S1	G5		
Neoconocephalus bivocatus	Two-voiced Conehead	S3	GNR		
	Katydid				
Neoconocephalus exiliscanorus	Slightly-musical Conehead	S3	GNR		
	Katydid				
Neoconocephalus lyristes	Bog Conehead Katydid	S3	GNR		
Neoconocephalus retusus	Round-tipped Conehead	S4?	GNR		
	Katydid				
Neoperla carlsoni	Spiny Stone	S3?	G4		
Neotrichia kitae	Kite's Neotrichian Caddisfly	SU	GU		
Neotridactylus apicalis	Larger Pygmy Grasshopper	SU	GNR		
Nicrophorus americanus	American Burying Beetle	SH	G2G3	E	E
Ochrotrichia contorta	Contorted Ochrotrichian	SU	G1G2		
	Micro Caddisfly				
Oecleus chrisjohni	A Cixiid Planthopper	SU	GNR		
Oncopodura hoffi	Hoff's Cave Springtail	S1S3	G1G2		
Oxybleptes kiteleyi	A Staphylinid Beetle	SU	GNR		
Pardalophora saussurei	A Glade Grasshopper	SU	G5		
Paroxya hoosieri	Hoosier Grasshopper	S1	G5		
Pentacora signoreti	A Shore Bug	S1	GNR		
Phoetaliotes nebrascensis	Large-headed Grasshopper	S3	G5		
Phrixocnemis truculentus	Truculent Camel Cricket	SU	GNR		
Phyllobrotica lengi	A Leaf Beetle	SU	GNR		
Phyllobrotica nigritarsis	A Leaf Beetle	SU	GNR		

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<b>INSECTS (Cont.)</b>					
Phyllobrotica physostegiae	A Leaf Beetle	S4?	GNR		
Polyergus longicornis	Long-horned Shining Amazon Ant	S1	GNR		
Polyergus montivagus	Foothills Shining Amazon Ant	S1	GNR		
Polyergus ruber	Ruby-red Shining Amazon Ant	S1	GNR		
Polyergus sanwaldi	Sanwald's Shining Amazon Ant	S1	GNR		
Prostoia similis	Longhorn Forestfly	S3	G5		
Pseudomasaris occidentalis	A Pollen Wasp	S3	GNR		
Pseudosinella espana	Espana Cave Springtail	S3	G2G3		
Psinidia fenestralis	Sand Grasshopper	S2S3	G5		
Satyrodes appalachia leeuwi	Appalachian Eyed Brown	S1	G4T4		
Sepedophilus campbelli	A Staphylinid Beetle	SU	GNR		
Serratella frisoni	Frison's Seratellan Mayfly	S2	G4		
Sinella avita	Avita Cave Springtail	SU	G3G4		
Sinella barri	Barr's Cave Springtail	SU	G5		
Somatochlora hineana	Hine's Emerald	S2	G2G3	E	E
Somatochlora ozarkensis	Ozark Emerald	SU	G3		
Somatochlora provocans	Treetop Emerald	S1	G4		
Speyeria diana	Diana Fritillary	SA	G3G4		
Speyeria idalia	Regal Fritillary	S3	G3		
Stenonema bednariki	A Heptageniid Mayfly	S3	G2G4		
Stethophyma celatum	Sedge Grasshopper	S3	G4		
Stylurus intricatus	Brimstone Clubtail	S1S2	G4		
Stylurus notatus	Elusive Clubtail	S2S3	G3		
Telebasis byersi	Duckweed Firetail	S1	G5		
Telebasis salva	Desert Firetail	SU	G5		
Tettigidea armata	Spined Grouse Locust	S2S3	G5		
Tomocerus missus	Missus Cave Springtail	SU	G4		
Trimerotropis maritima	Seaside Grasshopper	SH	G5		
Xenochalepus potomaca	A Leaf Beetle	SU	GNR		
Xenotrechus condei	Northern Xenotrechus Cave Beetle	S1	G1G2		
Xenotrechus denticollis	Southern Xenotrechus Cave Beetle	S1	G1G2		
Xylodromus capito	A Staphylinid Beetle	SU	GNR		
<b>Total Insect Records: 111</b>					
<b>FISH</b>					
Acipenser fulvescens	Lake Sturgeon	S1	G3G4	E	
Alosa alabamae	Alabama Shad	S2	G2G3		
Alosa chrysochloris	Skipjack Herring	SU	G5		
Amblyopsis rosae	Ozark Cavefish	S2	G3	E	T
Ameiurus nebulosus	Brown Bullhead	S3?	G5		
Ammocrypta clara	Western Sand Darter	S2S3	G3		
Ammocrypta vivax	Scaly Sand Darter	S3	G5		
Anguilla rostrata	American Eel	SU	G4		

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<b>FISH (Cont.)</b>					
Atractosteus spatula	Alligator Gar	S1	G3G4		
Carpiodes velifer	Highfin Carpsucker	S2	G4G5		
Centrarchus macropterus	Flier	S3	G5		
Cottus specus	Grotto Sculpin	S1	G2		E
Crystallaria asprella	Crystal Darter	S1	G3	E	
Cyprinella camura	Blunface Shiner	S2S3	G5		
Erimyzon sucetta	Lake Chubsucker	S2	G5		
Etheostoma cragini	Arkansas Darter	S3S4	G3G4		C
Etheostoma euzonum erizonum	Current Saddled Darter	S3	G3G4T3T 4		
Etheostoma euzonum euzonum	Arkansas Saddled Darter	S2	G3G4T3T 4		
Etheostoma fusiforme	Swamp Darter	S1	G5	E	
Etheostoma histrio	Harlequin Darter	S2	G5	E	
Etheostoma microperca	Least Darter	S2	G5		
Etheostoma nianquae	Niangua Darter	S2	G2	E	T
Etheostoma parvipinne	Goldstripe Darter	S1	G4G5	E	
Etheostoma whipplei	Redfin Darter	S1	G4	E	
Forbesichthys agassizii	Spring Cavefish	S1	G4	E	
Fundulus chrysotus	Golden Topminnow	S1	G5		
Fundulus dispar	Starhead Topminnow	S2	G4		
Fundulus kansae	Northern Plains Killifish	S2	G5		
Fundulus sciadicus	Plains Topminnow	S3	G4		
Hybognathus argyritis	Western Silvery Minnow	S2	G4		
Hybognathus hankinsoni	Brassy Minnow	S3	G5		
Hybognathus hayi	Cypress Minnow	S1	G4G5	E	
Hybognathus nuchalis	Mississippi Silvery Minnow	S3S4	G5		
Hybognathus placitus	Plains Minnow	S2	G4		
Hybopsis amnis	Pallid Shiner	SX	G4		
Ichthyomyzon gagei	Southern Brook Lamprey	S2S3	G5		
Lepomis marginatus	Dollar Sunfish	S2	G5		
Lepomis symmetricus	Bantam Sunfish	S2	G5		
Lethenteron appendix	American Brook Lamprey	S2	G4		
Macrhybopsis gelida	Sturgeon Chub	S3	G3		
Mugil cephalus	Striped Mullet	SA	G5		
Notropis buechanani	Ghost Shiner	S2	G5		
Notropis chalybaeus	Ironcolor Shiner	S1	G4		
Notropis heterolepis	Blacknose Shiner	S2	G4		
Notropis maculatus	Taillight Shiner	S1	G5	E	
Notropis ozarcanus	Ozark Shiner	S2	G3		
Notropis sabinae	Sabine Shiner	S1	G4	E	
Notropis texanus	Weed Shiner	S3	G5		
Notropis topeka	Topeka Shiner	S1	G3	E	E
Noturus eleutherus	Mountain Madtom	S1S2	G4	E	
Noturus flavater	Checkered Madtom	S3S4	G3G4		
Noturus placidus	Neosho Madtom	S1	G2	E	T
Opsopoeodus emiliae	Pugnose Minnow	S4	G5		
Percina copelandi	Channel Darter	S3	G4		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>FISH (Cont.)</b>					
<i>Percina cymatotaenia</i>	Bluestripe Darter	S2	G2		
<i>Percina nasuta</i>	Longnose Darter	S1	G3	E	
<i>Percina shumardi</i>	River Darter	S3	G5		
<i>Percina uranidea</i>	Stargazing Darter	S2	G3		
<i>Percopsis omiscomaycus</i>	Trout-perch	S1?	G5		
<i>Pimephales tenellus parviceps</i>	Eastern Slim Minnow	S2S3	G4T2T3		
<i>Pimephales tenellus tenellus</i>	Western Slim Minnow	S3	G4T4		
<i>Platygobio gracilis</i>	Flathead Chub	S1	G5	E	
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	S1	G2	E	E
<i>Typhlichthys subterraneus</i>	Southern Cavefish	S2S3	G4		
<i>Umbra limi</i>	Central Mudminnow	S1	G5	E	
<b>Total Fish Records: 65</b>					
<b>AMPHIBIANS</b>					
<i>Ambystoma annulatum</i>	Ringed Salamander	S3	G4		
<i>Ambystoma talpoideum</i>	Mole Salamander	S2	G5		
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	S3	G5		
<i>Amphiuma tridactylum</i>	Three-toed Amphiuma	S2	G5		
<i>Anaxyrus cognatus</i>	Great Plains Toad	S3	G5		
<i>Cryptobranchus alleganiensis</i>	Eastern Hellbender	S1	G3G4T3T4	E	
<i>Cryptobranchus alleganiensis bishopi</i>	Ozark Hellbender	S1	G3G4T2Q	E	E
<i>Eurycea spelaea</i>	Grotto Salamander	S2S3	G4		
<i>Hemidactylium scutatum</i>	Four-toed Salamander	S4	G5		
<i>Lithobates areolatus circulosus</i>	Northern Crawfish Frog	S3	G4T4		
<i>Lithobates pipiens</i>	Northern Leopard Frog	S2	G5		
<i>Lithobates sylvaticus</i>	Wood Frog	S3	G5		
<i>Pseudacris illinoensis</i>	Illinois Chorus Frog	S2	G3		
<i>Scaphiopus holbrookii</i>	Eastern Spadefoot	S2	G5		
<b>Total Amphibian Records: 14</b>					
<b>REPTILES</b>					
<i>Cemophora coccinea copei</i>	Northern Scarletsnake	S2S3	G5T5		
<i>Clonophis kirtlandii</i>	Kirtland's Snake	S1	G2		
<i>Crotaphytus collaris</i>	Eastern Collared Lizard	S4	G5		
<i>Deirochelys reticularia miaria</i>	Western Chicken Turtle	S1	G5T5	E	
<i>Emydoidea blandingii</i>	Blanding's Turtle	S1	G4	E	
<i>Farancia abacura reinwardtii</i>	Western Mudsnake	S2	G5T5		
<i>Heterodon gloydi</i>	Dusty Hog-nosed Snake	S1	G5T3T4Q		
<i>Heterodon nasicus</i>	Plains Hog-nosed Snake	SX	G5		
<i>Kinosternon flavescens</i>	Yellow Mud Turtle	S1	G5	E	
<i>Macrochelys temminckii</i>	Alligator Snapping Turtle	S2	G3G4		
<i>Nerodia cyclopion</i>	Mississippi Green Watersnake	SX	G5	E	
<i>Opheodrys vernalis</i>	Smooth Greensnake	SX	G5		
<i>Pantherophis ramspotti</i>	Western Foxsnake	S1	G5		
<i>Pantherophis vulpinus</i>	Eastern Foxsnake	S1	G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>REPTILES (Cont.)</b>					
Phrynosoma cornutum	Texas Horned Lizard	S2	G4G5		
Pituophis catenifer sayi	Bullsnake	SU	G5T5		
Plestiodon obsoletus	Great Plains Skink	S2	G5		
Plestiodon septentrionalis obtusirostris	Southern Prairie Skink	S3	G5T5		
Plestiodon septentrionalis septentrionalis	Northern Prairie Skink	S3	G5T5		
Sistrurus catenatus	Eastern Massasauga	SX	G3G4	E	C
Sistrurus tergeminus tergeminus	Prairie Massasauga	S1	GNR	E	
<b>Total Reptile Records: 21</b>					
<b>BIRDS (See Appendix A for Tracking Criteria)</b>					
Accipiter striatus	Sharp-shinned Hawk	S2	G5		
Anhinga anhinga	Anhinga	SU	G5		
Ardea alba	Great Egret	S3	G5		
Asio flammeus	Short-eared Owl	S2	G5		
Asio otus	Long-eared Owl	SU	G5		
Athene cunicularia	Burrowing Owl	SX	G4		
Bonasa umbellus	Ruffed Grouse	SU	G5		
Botaurus lentiginosus	American Bittern	S1	G4	E	
Buteo swainsoni	Swainson's Hawk	S2	G5		
Campephilus principalis	Ivory-billed Woodpecker	SX	G1		E
Certhia americana	Brown Creeper	SU	G5		
Chlidonias niger	Black Tern	SX	G4		
Circus cyaneus	Northern Harrier	S2	G5	E	
Cistothorus palustris	Marsh Wren	S3	G5		
Coragyps atratus	Black Vulture	S3	G5		
Corvus corax	Common Raven	SX	G5		
Coturnicops noveboracensis	Yellow Rail	SU	G4		
Cygnus buccinator	Trumpeter Swan	S1	G4		
Egretta caerulea	Little Blue Heron	S3	G5		
Egretta thula	Snowy Egret	S1	G5	E	
Elanoides forficatus	Swallow-tailed Kite	SX	G5		
Empidonax minimus	Least Flycatcher	SU	G5		
Falco peregrinus	Peregrine Falcon	S1	G4	E	
Gallinula galeata	Common Gallinule	S2	G5		
Geococcyx californianus	Greater Roadrunner	S3	G5		
Grus canadensis	Sandhill Crane	S1	G5		
Haliaeetus leucocephalus	Bald Eagle	S3	G5		
Ictinia mississippiensis	Mississippi Kite	S3	G5		
Ixobrychus exilis	Least Bittern	S3	G5		
Lanius ludovicianus	Loggerhead Shrike	S2	G4		
Laterallus jamaicensis	Black Rail	SU	G4		
Limnithlypis swainsonii	Swainson's Warbler	S2	G4	E	
Nycticorax nycticorax	Black-crowned Night-heron	S3	G5		
Pandion haliaetus	Osprey	S2	G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>BIRDS (Cont.)</b>					
Passerina ciris	Painted Bunting	S3	G5		
Peucaea aestivalis	Bachman's Sparrow	S1	G3	E	
Picoides borealis	Red-cockaded Woodpecker	SX	G3		E
Porzana carolina	Sora	S2	G5		
Rallus elegans	King Rail	S1	G4	E	
Rallus limicola	Virginia Rail	S2	G5		
Setophaga cerulea	Cerulean Warbler	S2S3	G4		
Setophaga pensylvanica	Chestnut-sided Warbler	SU	G5		
Setophaga virens	Black-throated Green Warbler	SU	G5		
Sitta pusilla	Brown-headed Nuthatch	SX	G5		
Spinus pinus	Pine Siskin	SU	G5		
Sterna antillarum athalassos	Interior Least Tern	S1	G4T2Q	E	E
Tympanuchus cupido	Greater Prairie-chicken	S1	G4	E	
Tyto alba	Barn Owl	S3	G5		
Vermivora bachmanii	Bachman's Warbler	SX	GH		E
Xanthocephalus xanthocephalus	Yellow-headed Blackbird	S3	G5		
<b>Total Bird Records: 50</b>					
<b>MAMMALS</b>					
Bison bison	American Bison	SX	G4		
Canis lupus	Gray Wolf	SX	G4G5		E
Canis rufus	Red Wolf	SX	G1Q		E
Cervus elaphus	Elk or Wapiti	S?	G5		
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	S1	G3G4		
Corynorhinus townsendii ingens	Ozark Big-eared Bat	SX	G3G4T1	E	E
Ictidomys tridecemlineatus	Thirteen-lined Ground Squirrel	S2	G5		
Lasionycteris noctivagans	Silver-haired Bat	S3	G5		
Lasiurus seminolus	Seminole Bat	SA	G5		
Lepus californicus	Black-tailed Jackrabbit	S1	G5	E	
Lepus townsendii	White-tailed Jackrabbit	SX	G5		
Mustela frenata	Long-tailed Weasel	S3	G5		
Mustela nivalis	Least Weasel	S3	G5		
Myotis austroriparius	Southeastern Myotis	S1	G3G4		
Myotis grisescens	Gray Myotis	S3	G3	E	E
Myotis leibii	Eastern Small-footed Myotis	S2	G1G3		
Myotis septentrionalis	Northern Long-eared Myotis	S3	G1G3		PE
Myotis sodalis	Indiana Myotis	S1	G2	E	E
Ochrotomys nuttalli	Golden Mouse	S3	G5		
Oryzomys palustris	Marsh Rice Rat	SU	G5		
Perognathus flavescens	Plains Pocket Mouse	S1	G5		
Peromyscus gossypinus	Cotton Mouse	S2	G5		
Poliocitellus franklinii	Franklin's Ground Squirrel	S2S3	G5		
Puma concolor	Mountain Lion	SX	G5		
Reithrodontomys montanus	Plains Harvest Mouse	S2	G5		



<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>MAMMALS (<i>Cont.</i>)</b>					
Spilogale putorius interrupta	Plains Spotted Skunk	S1	G5T4	E	
Sylvilagus aquaticus	Swamp Rabbit	S2	G5		
Tadarida brasiliensis	Brazilian Free-tailed Bat	SA	G5		
Taxidea taxus	American Badger	S3	G5		

**Total Mammal Records: 29**

**Total Records Processed: 1135**

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### **FOR MORE INFORMATION**

The Missouri Department of Conservation collects and manages information on the location and status of species and natural communities of conservation concern throughout the state. The Natural Heritage Database is a repository for this information.

If you have information on the location or questions about the status of any element on this checklist, please write or call:

Heritage Coordinator  
Missouri Department of Conservation  
P.O. Box 180  
2901 W Truman Blvd  
Jefferson City, MO 65109  
(573) 522-4115

If you are requesting information about the location of any element on this checklist for the purposes of environmental review, please write:

Policy Coordination  
Missouri Department of Conservation  
P.O. Box 180  
Jefferson City, MO 65109

### **WEBPAGE**

This checklist is updated annually. The most current version is always available by contacting the Missouri Department of Conservation, Resource Science Division. *Checklist* information is also available on the Missouri Department of Conservation's website: <http://mdc.mo.gov/145>.

### **CITATION**

An appropriate citation for this edition of the *Checklist* is:

Missouri Natural Heritage Program. 2015. Missouri species and communities of conservation concern checklist. Missouri Department of Conservation. Jefferson City, Missouri. pp. 59.

**APPENDIX A**  
**BIRD SPECIES TRACKED IN HERITAGE AND THEIR CRITERIA FOR EORS**  
**Updated August 10, 2012**

<b>Species (ranks)</b>	<b>Regions</b>	<b>Criteria (safe dates), comments</b>
<b>Anseriformes (Ducks, geese, swans)</b>		
Trumpeter Swan (S1, G4)	All (NE, NW)	1
<b>Galliformes (chicken-like birds)</b>		
Ruffed Grouse (SU, G5)	CE, OZ, SL, SE	1
Greater Prairie-chicken (S1, G4)	SW, KC, NW, NE	Anytime observed
<b>Pelecaniformes (pelicans, cormorants, darters)</b>		
Anhinga (SX, G5)	SE	1
<b>Ciconiiformes (herons, egrets, storks, ibises, vultures)</b>		
American Bittern (S1, G4)	All	1- extensive emergent marshes
Least Bittern (S3, G5)	All	1,2 (5/25-8/1)
Great Egret (S3, G5)	All (SE)	1
Snowy Egret (S1, G5)	SE	1
Little Blue Heron (S3, G5)		SE, SL
Black-crowned Night-Heron (S3, G5)	All (SE)	1
Black Vulture (S3, G5)	OZ, SE	1
<b>Falconiformes (hawks, falcons, eagles, kites)</b>		
Osprey (S2, G5)	All (confirmed NE, SW)	1- Any large open body of water
Mississippi Kite (S3, G5)	All (SE, SL, NE)	1- Expanding range
Bald Eagle (S3, G4)	All	1- Any large open body of water
Northern Harrier (S2, G5)	All (except OZ, SE)	1
Sharp-shinned Hawk (S2, G5)	All	1
Swallow-tailed Kite (SX, G5)	SE	1- Formerly SE, large rivers
Swainson's Hawk (S2, G5)	SW, KC	1
Peregrine Falcon (S1, G4)	SL, KC	1- Formerly along MO river bluffs
<b>Gruiformes (rails, cranes)</b>		
Sandhill Crane (S1, G5)	NE, NW, CE, SL	
Black Rail (S1, G4)	All	Anytime observed, large marshes
Yellow Rail (SU, G4)	All	Anytime observed (migrant)
King Rail (S1, G4G5)	All (SE, SL, NE)	1,2 (5/30-7/31)
Virginia Rail (S2, G5)	All	1,2 (5/15-8/1)
Sora (S2, G5)	All	1,2 (5/30-7/31)
Common Gallinule (S2, G5)	All (except OZ)	1,2 (5/30-8/31)
<b>Charadriiformes (gulls, terns, shorebirds)</b>		
Interior Least Tern (S1, G4T2Q)	SE	1- Formerly along MS, MO Rivers
Black Tern (SX, G4)	NW	1
<b>Cuculiformes (cuckoos, roadrunners)</b>		
Greater Roadrunner (S3, G5)	SW, OZ	
<b>Strigiformes (Owls)</b>		
Barn Owl (S3, G5)	All (SE)	1,2 (5/25-8/15)
Long-eared Owl (SU, G5)	All	1-Forests, dense thickets near water
Short-eared Owl (S2, G5)	SW, NW, NE, KC	1,2 (5/1-8/31)
Burrowing Owl (SX, G4)	NW	1

**Piciformes (Woodpeckers)**

Ivory-billed Woodpecker (SX, G1)	All	Anytime observed
Red-cockaded Woodpecker (SX, G3)	OZ, SE	Anytime observed

**Passeriformes (perching birds)**

Least Flycatcher (SU, G5)	NE, NW	1,2 (5/27-7/7)
Loggerhead Shrike (S2, G5)	All (SW, KC, NW)	1,2 (4/20-7/20)
Common Raven (SX, G5)	All	Anytime observed
Brown-headed Nuthatch (SX, G5)	OZ, SE	Anytime observed
Brown Creeper (SU, G5)	SL, NE, OZ	1,2 (5/15-9/15)
Marsh Wren (S3, G5)	All (except SW, SE, OZ)	1,2 (5/25-8/25)
Bachman's Warbler (SX, GH)	All	Anytime observed
Chestnut-sided Warbler (S3, G5)	All	1,2 (6/1-8/10)
Black-throated Green Warbler (SU, G5)	SE	1
Cerulean Warbler (S2S3, G4)	All (OZ)	1,2 (6/1-8/10)
Swainson's Warbler (S2, G4)	SE, OZ, SW	1,2 (5/25-8/15)
Bachman's Sparrow (S1, G3)	OZ, SW, SE	1,2 (6/1-8/15)
Painted Bunting (S3, G5)	SW, OZ	1,2 (5/25-8/1)
Yellow-headed Blackbird (S3, G5)	NW (possible anywhere)	1
Pine Siskin (SU, G5)	All	1

**MDC Region abbreviations (Regions listed are those in which the species is most likely to be recorded).**

<b>CE- Central</b>	<b>KC- Kansas City</b>
<b>NE- Northeast</b>	<b>NW- Northwest</b>
<b>OZ- Ozark</b>	<b>SL- St. Louis</b>
<b>SE- Southeast</b>	<b>SW- Southwest</b>

**Explanation of Criteria****1. Confirmed breeding. Evidenced one or more of the following:**

- Nest building (except wrens and woodpeckers)
- Nest with egg(s) or young (seen or heard)
- Used nest or eggshells
- Physiological evidence of breeding based upon bird in hand (e.g. brood patch)
- Distraction display or injury feigning
- Recently fledged young
- Adults entering or leaving nest site in circumstances indicating nesting
- Adult carrying fecal sac
- Adult carrying food

**2. Probable or possible breeding (valid only between safe dates)**

- Probable
  - Male and female seen together (not part of a flock)
  - Bird holding territory
  - Seven or more singing males detected in one visit
  - Courtship or copulation
  - Visiting probable nest site
  - Agitated behavior or anxiety call (not provoked by observer)
  - Nest building by wrens or woodpeckers
- Possible
  - Species heard or seen in breeding habitat



# PLANTS OF CONSERVATION CONCERN REPORTING FORM

Complete relevant fields for which you have information

## HERITAGE BIOLOGIST AND LAB USE ONLY

EO Report Status (check one): New \_\_\_\_\_ Update with mapping \_\_\_\_\_ Update without mapping \_\_\_\_\_  
EO\_ID: \_\_\_\_\_ EONUM: \_\_\_\_\_ ELCODE: \_\_\_\_\_ Fed Status: \_\_\_\_\_ State Status: \_\_\_\_\_ SRANK: \_\_\_\_\_  
Heritage mapper: \_\_\_\_\_ Heritage map QC'er: \_\_\_\_\_ Heritage Biologist: \_\_\_\_\_  
Heritage mapping date: \_\_\_\_\_ Heritage map QC date: \_\_\_\_\_ Heritage Biologist Date: \_\_\_\_\_

## ELEMENT IDENTIFICATION and LOCATION

Scientific Name: \_\_\_\_\_ Common Name: \_\_\_\_\_  
Survey Site Name: \_\_\_\_\_  
Directions to the survey site: \_\_\_\_\_  
County(ies): \_\_\_\_\_  
USGS Quadrangle name(s): \_\_\_\_\_  
Township: \_\_\_\_\_ Range: \_\_\_\_\_ Section: \_\_\_\_\_ Quarter Sections: \_\_\_\_\_  
GPS should be in NAD83, zone 15. If not, indicate: NAD \_\_\_\_\_ Zone \_\_\_\_\_  
UTM: Easting (X) \_\_\_\_\_ OR: Latitude (N) \_\_\_\_\_  
Northing (Y) \_\_\_\_\_ Longitude (W) \_\_\_\_\_  
Explanation of possible GPS unit inaccuracy: \_\_\_\_\_

## MAPPING

Attach a map with the species' location clearly marked in hard copy, digital, or shapefile format. No county maps, please.  
Person who marked the map (last name, first name): \_\_\_\_\_  
Locational Uncertainty (buffer radius): The mapped location is within \_\_\_\_\_ Meters OR \_\_\_\_\_ Feet OR \_\_\_\_\_ Miles

## ELEMENT OCCURRENCE SURVEY INFORMATION

Survey Date (yyyy-mm-dd): \_\_\_\_\_ Observer(s) (last name, first name): \_\_\_\_\_  
Abundance (actual and/or estimated number observed): \_\_\_\_\_  
Condition (plants sterile, in bud, flower or fruit, evidence of disease, predation, or exotics): \_\_\_\_\_  
Person hours searching for Element: \_\_\_\_\_  
Specimen or photograph taken (collector/photographer, collection #, year, acquisition number and repository): \_\_\_\_\_  
General Habitat Description: \_\_\_\_\_

## CONSERVATION INFORMATION

Managed Area Name(s): \_\_\_\_\_  
Is EO completely within boundaries of Managed Area(s)? Yes OR Partially  
Owner(s): \_\_\_\_\_  
Owner Comments (include address/phone number and other relevant comments): \_\_\_\_\_  
Management Comments (needs for management, protection, monitoring, and/or research): \_\_\_\_\_

General Comments (include any associated species and/or any other relevant information): \_\_\_\_\_

Form completed by (last name, first name): \_\_\_\_\_ Date: \_\_\_\_\_

Thank you for your assistance in helping maintain the Missouri Natural Heritage Program.  
Return to: Resource Science Division – Heritage Botanist, Missouri Department of Conservation,  
P.O. Box 180, Jefferson City, Missouri 65102. (573) 522-4115

## HERITAGE BIOLOGIST USE ONLY

EO Rank: \_\_\_\_\_ Origin Subrank: \_\_\_\_\_ EO Rank Comments: \_\_\_\_\_  
Reference(s) (include contact information for any new references): \_\_\_\_\_  
Version Author (last name, first name): \_\_\_\_\_

# ANIMALS OF CONSERVATION CONCERN REPORTING FORM

Complete relevant fields for which you have information

## HERITAGE BIOLOGIST AND LAB USE ONLY

EO Report Status (check one): New \_\_\_\_\_ Update with mapping \_\_\_\_\_ Update without mapping \_\_\_\_\_  
EO\_ID: \_\_\_\_\_ EONUM: \_\_\_\_\_ ELCODE: \_\_\_\_\_ Fed Status: \_\_\_\_\_ State Status: \_\_\_\_\_ SRANK: \_\_\_\_\_  
Heritage mapper: \_\_\_\_\_ Heritage map QC'er: \_\_\_\_\_ Heritage Biologist: \_\_\_\_\_  
Heritage mapping date: \_\_\_\_\_ Heritage map QC date: \_\_\_\_\_ Heritage Biologist Date: \_\_\_\_\_

## ELEMENT IDENTIFICATION and LOCATION

Scientific Name: \_\_\_\_\_ Common Name: \_\_\_\_\_  
Survey Site Name: \_\_\_\_\_  
Directions to the survey site: \_\_\_\_\_  
County(ies): \_\_\_\_\_  
USGS Quadrangle name(s): \_\_\_\_\_  
Township: \_\_\_\_\_ Range: \_\_\_\_\_ Section: \_\_\_\_\_ Quarter Sections: \_\_\_\_\_  
GPS should be in NAD83, zone 15. If not, indicate: NAD \_\_\_\_\_ Zone \_\_\_\_\_  
UTM: Easting (X) \_\_\_\_\_ OR: Latitude (N) \_\_\_\_\_  
Northing (Y) \_\_\_\_\_ Longitude (W) \_\_\_\_\_  
Explanation of possible GPS unit inaccuracy: \_\_\_\_\_

## MAPPING

Attach a map with the species' location clearly marked in hard copy, digital, or shapefile format. No county maps, please.  
Person who marked the map (last name, first name): \_\_\_\_\_  
Locational Uncertainty (buffer radius): The mapped location is within \_\_\_\_\_ Meters OR \_\_\_\_\_ Feet OR \_\_\_\_\_ Miles

## ELEMENT OCCURRENCE SURVEY INFORMATION

Survey Date (yyyy-mm-dd): \_\_\_\_\_ Observer(s) (last name, first name): \_\_\_\_\_  
Abundance (actual and/or estimated number observed): \_\_\_\_\_  
Condition (evidence of reproduction, disease, predation, injury, etc. For cave species, indicate hibernaculum, maternity, etc.): \_\_\_\_\_  
External Measurements: \_\_\_\_\_  
Person hours searching for Element: \_\_\_\_\_  
Sampling Methodology (traps, seining, call count, etc.): \_\_\_\_\_  
Specimen or photograph taken (collector/photographer, collection #, year, acquisition number and repository): \_\_\_\_\_  
General Habitat Description: \_\_\_\_\_

## CONSERVATION INFORMATION

Managed Area Name(s): \_\_\_\_\_  
Is EO completely within boundaries of Managed Area(s)? Yes OR Partially  
Owner(s): \_\_\_\_\_  
Owner Comments (include address/phone number and other relevant comments): \_\_\_\_\_  
Management Comments (needs for management, protection, monitoring, and/or research): \_\_\_\_\_

General Comments (include any associated species and/or any other relevant information): \_\_\_\_\_

Form completed by (last name, first name): \_\_\_\_\_ Date: \_\_\_\_\_

Thank you for your assistance in helping maintain the Missouri Natural Heritage Program.  
Return to: Resource Science Division – Heritage Zoologist, Missouri Department of Conservation,  
3500 East Gans Road, Columbia, Missouri 65201. (573) 815-7900

## HERITAGE BIOLOGIST USE ONLY

EO Rank: \_\_\_\_\_ Origin Subrank: \_\_\_\_\_ EO Rank Comments: \_\_\_\_\_  
Reference(s) (include contact information for any new references): \_\_\_\_\_  
Version Author (last name, first name): \_\_\_\_\_

# TERRESTRIAL NATURAL COMMUNITY REPORTING FORM

Complete relevant fields for which you have information

## HERITAGE BIOLOGIST AND LAB USE ONLY

EO Report Status (check one): New \_\_\_\_\_ Update with mapping \_\_\_\_\_ Update without mapping \_\_\_\_\_  
EO\_ID: \_\_\_\_\_ EONUM: \_\_\_\_\_ ELCODE: \_\_\_\_\_ GELCODE: \_\_\_\_\_ Gelcode Conf. Level: 1 2 3  
Heritage mapper: \_\_\_\_\_ Heritage map QC'er: \_\_\_\_\_ Heritage Biologist: \_\_\_\_\_  
Heritage mapping date: \_\_\_\_\_ Heritage map QC date: \_\_\_\_\_ Heritage Biologist Date: \_\_\_\_\_

## ELEMENT IDENTIFICATION and LOCATION

Terrestrial Natural Community Name/Type: \_\_\_\_\_  
Survey Site Name: \_\_\_\_\_  
Directions to the survey site: \_\_\_\_\_  
County(ies): \_\_\_\_\_  
USGS Quadrangle name(s): \_\_\_\_\_  
Township: \_\_\_\_\_ Range: \_\_\_\_\_ Section: \_\_\_\_\_ Quarter Sections: \_\_\_\_\_  
GPS should be in NAD83, zone 15. If not, indicate: NAD \_\_\_\_\_ Zone \_\_\_\_\_  
UTM: Easting (X) \_\_\_\_\_ OR: Latitude (N) \_\_\_\_\_  
Northing (Y) \_\_\_\_\_ Longitude (W) \_\_\_\_\_  
Explanation of possible GPS unit inaccuracy: \_\_\_\_\_

## MAPPING

Attach a map with the natural comm. location clearly marked in hard copy, digital, or shapefile format. No county maps, please.  
Person who marked the map (last name, first name): \_\_\_\_\_  
Locational Uncertainty (buffer radius): The mapped location is within \_\_\_\_\_ Meters OR \_\_\_\_\_ Feet OR \_\_\_\_\_ Miles

## ELEMENT OCCURRENCE SURVEY INFORMATION

Survey Date (yyyy-mm-dd): \_\_\_\_\_ Observer(s) (last name, first name): \_\_\_\_\_  
Plant species composition (5-10 dominant or characteristic plant taxa by scientific name): \_\_\_\_\_  
General Habitat Description (describe substrate, topography and vegetation structure including acreage. E.g., "Glade system with three openings of 1, 5, and 10 acres." If part of a natural community complex, describe what percentage of the mapped polygon is made up of this EO type. E.g., "30% of a complex with wet-prairie and freshwater marsh."): \_\_\_\_\_  
Community Significance (circle one): Significant Exceptional Notable  
EO Rank: \_\_\_\_\_ Origin Subrank: \_\_\_\_\_ EO Rank Comments (describe ecological integrity; i.e., resemblance to presettlement condition, lack of exotic species, presence of conservative species, floristic quality index values, etc.): \_\_\_\_\_

## CONSERVATION INFORMATION

Managed Area Name(s): \_\_\_\_\_  
Is EO completely within boundaries of Managed Area(s)? Yes OR Partially  
Owner(s): \_\_\_\_\_  
Owner Comments (include address/phone number and other relevant comments): \_\_\_\_\_  
Management Comments (needs for management, protection, monitoring, and/or research): \_\_\_\_\_

General Comments (include any associated species and/or any other relevant information): \_\_\_\_\_  
Form completed by (last name, first name): \_\_\_\_\_ Date: \_\_\_\_\_

Thank you for your assistance in helping maintain the Missouri Natural Heritage Program.

Return to: Wildlife Division – Heritage Ecologist, Missouri Department of Conservation,  
P.O. Box 180, Jefferson City, Missouri 65102. (573) 522-4115

## HERITAGE BIOLOGIST USE ONLY

Reference(s) (include contact information for any new references): \_\_\_\_\_  
Version Author (last name, first name): \_\_\_\_\_

# AQUATIC NATURAL COMMUNITY REPORTING FORM

Complete relevant fields for which you have information

## HERITAGE BIOLOGIST AND LAB USE ONLY

EO Report Status (check one): New \_\_\_\_\_ Update with mapping \_\_\_\_\_ Update without mapping \_\_\_\_\_  
EO ID: \_\_\_\_\_ EONUM: \_\_\_\_\_ ELCODE: \_\_\_\_\_  
Heritage mapper: \_\_\_\_\_ Heritage map QC'er: \_\_\_\_\_ Heritage Biologist: \_\_\_\_\_  
Heritage mapping date: \_\_\_\_\_ Heritage map QC date: \_\_\_\_\_ Heritage Biologist Date: \_\_\_\_\_

## ELEMENT IDENTIFICATION and LOCATION

Aquatic Natural Community Name/Type: \_\_\_\_\_  
Survey Site Name: \_\_\_\_\_  
Directions to the survey site: \_\_\_\_\_  
County(ies): \_\_\_\_\_  
USGS Quadrangle name(s): \_\_\_\_\_  
Township: \_\_\_\_\_ Range: \_\_\_\_\_ Section: \_\_\_\_\_ Quarter Sections: \_\_\_\_\_  
GPS should be in NAD83, zone 15. If not, indicate: NAD \_\_\_\_\_ Zone \_\_\_\_\_  
UTM: Easting (X) \_\_\_\_\_ OR: Latitude (N) \_\_\_\_\_  
Northing (Y) \_\_\_\_\_ Longitude (W) \_\_\_\_\_  
Explanation of possible GPS unit inaccuracy: \_\_\_\_\_

## MAPPING

Attach a map with the natural comm. location clearly marked in hard copy, digital, or shapefile format. No county maps, please.  
Person who marked the map (last name, first name): \_\_\_\_\_

## ELEMENT OCCURRENCE SURVEY INFORMATION

Survey Date (yyyy-mm-dd): \_\_\_\_\_ Observer(s) (last name, first name): \_\_\_\_\_  
Aquatic assemblage (5-10 dominant or characteristic fish and/or aquatic invertebrate taxa by scientific name): \_\_\_\_\_  
General Habitat Description (describe stream order, miles to headwaters, riparian corridor condition, composition of riffles and pools, and other physical factors): \_\_\_\_\_  
Community Significance (circle one): Significant Exceptional Notable  
EO Rank: \_\_\_\_\_ Origin Subrank: \_\_\_\_\_ EO Rank Comments (describe ecological integrity; i.e., resemblance to presettlement condition, lack of exotic species, presence of conservative species, biologic integrity index values, etc.): \_\_\_\_\_

## CONSERVATION INFORMATION

Managed Area Name(s): \_\_\_\_\_  
Is EO completely within boundaries of Managed Area(s)?: Yes OR Partially  
Owner(s): \_\_\_\_\_  
Owner Comments (include address/phone number and other relevant comments): \_\_\_\_\_  
Management Comments (needs for management, protection, monitoring, and/or research; include RAM monitoring site number): \_\_\_\_\_

General Comments (include any associated species and/or any other relevant information): \_\_\_\_\_

Form completed by (last name, first name): \_\_\_\_\_ Date: \_\_\_\_\_

Thank you for your assistance in helping maintain the Missouri Natural Heritage Program.  
Return to: Resource Science Division – Heritage Coordinator, Missouri Department of Conservation,  
P.O. Box 180, Jefferson City, Missouri 65102. (573) 522-4115

## HERITAGE BIOLOGIST USE ONLY

Reference(s) (include contact information for any new references): \_\_\_\_\_  
Version Author (last name, first name): \_\_\_\_\_